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RF/RMRS-99-431 UN

Closeout Radiological Survey Report

For Building 779,

"A" Annex

Rocky Mountain Remediation Services, L.L.C.

Millennium Services Inc

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CLOSEOUT RADIOLOGICAL SURVEY REPORT
FOR BUILDING 779, "A" Annex

REVISION 0

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Attachments

Acronyms

cpm	Counts Per Minute
CRSP	Closeout Radiological Survey Plan
D&D	Decontamination and Decommissioning
$DCGL_W$	Derived Concentration Guideline Level – Wilcoxon Rank Sum test
$DCGL_{EMC}$	Derived Concentration Guideline Level – Elevated Measurement Comparison
DOE	U S Department of Energy
dpm	Disintegration Per Minute
DQA	Data Quality Assessment
DQO	Data Quality Objectives
FSS	Final Status Survey
FSSP	Final Status Survey Plan
FSSR	Final Status Survey Report
HSA	Historical Site Assessment
LBGR	Lower Bound of the Gray Region
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MDA	Minimum Detectable Activity
MDC	Minimum Detectable Concentration
NIST	National Institute of Standards & Technology
NORM	Naturally Occurring Radioactive Material
PRE	Project Radiological Engineer
PSPC	Position Sensitive Proportional Counter
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QC	Quality Control
RCT	Radiological Control Technician
RE	Radiological Engineer
REFS	Radiological Engineering Field Services
RESS	Radiological Engineering Support Services
RFETS	Rocky Flats Environmental Technology Site
SAC-4	Scintillation Alpha Counter
SCM/SIMS	Surface Contamination Monitor/Survey Information Management System
SRA	Shonka Research Associates
TSA (TSC)	Total Surface Activity (or Total Surface Contamination)
V&V	Verification and Validation

Abstract

Total and removable surface contamination surveys and scan surveys were performed in each "A" Annex survey units Paint/surface media samples were collected in survey units 77907, 77908, 77910, 77921, 77922, 77927, 77928, 77929 The number/frequency of surveys/samples collected in each survey unit was based on the guidance provided in the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)

All survey/sample results presented in this report meet the DCGLs as defined by the Closeout Radiological Survey Plan for the 779 Cluster

1.0 Introduction

Building 779 was originally constructed in 1965, with additions in 1968 and 1973 The mission of Building 779 was primarily as a nuclear weapons research and development center, and an analytical laboratory in support of Plutonium Operations This report documents the final survey results of "A" Annex, the north end of the loading dock floors, walls and roof, and the south end of the loading dock walls of 779 (including the exterior surfaces of "A" Annex and the loading dock) The final surveys for other portions of Building 779 and the Building 779 cluster will be documented in separate, stand-alone reports

"A" Annex and the loading dock are single-level structures that are connected to the north and east side of Building 779 The exterior walls of "A" Annex are cinder block and concrete The exterior walls of the loading dock are galvanized steel, cinder block and concrete

"A" Annex contained numerous laboratories and support facilities that were utilized for nuclear weapons research and development Numerous floor, walls and ceiling surfaces were hydrolased to remove paint Small areas where contamination penetrated into the concrete substrate were remediated Some of the remediated areas in the slab such as boltholes were at a depth greater than 3/8 of an inch All accessible surfaces were surveyed Since the slab will be remediated at a later time when environmental restoration is performed, the total activity surveys on the accessible surfaces is deemed acceptable

Final surveys were limited to alpha contamination surveys Beta-gamma characterization surveys and removable contamination measurements did not indicate the presence of any beta-gamma contamination in excess of the applicable DCGLs Tritium smears collected in Room 154 did not indicate any tritium contamination in excess of the applicable tritium DCGLs

The areas were stripped of radiologically contaminated process piping prior to the performance of final surveys All contaminated and non-contaminated penetrations in the slab were grouted and will remain until environmental restoration is accomplished One contaminated slab penetration (approximately 12" X 12") had a metal frame with fixed contamination The penetration could not be easily decontaminated and was therefore grouted and a plate was affixed over the penetration and imbedded metal frame The plate will be labeled and painted orange prior to demolition to indicate the presence of radioactive contamination

Five additional large area slab penetrations (12" X 12") were confirmed to contain fixed contamination, and were subsequently grouted The contamination in these penetrations is below grade, therefore they are not required to be plated in accordance with the 779 Closeout Radiological Survey Plan However, as a good ALARA practice, plates will also be placed over these large area penetrations in order to protect the grout during demolition

The galvanized steel walls and ceiling of the dock are outside the scope of final survey, and will be evaluated and released per a Release Evaluation in accordance with 3-PRO-141-RSP-09 01, *Unrestricted Release of Property, Material, Equipment, and Waste*, prior to building demolition and released via Release Evaluation (#991101-00779-001) The material will remain on the building during demolition, and will be segregated from building rubble after demolition

The north doors of Rooms 154 and 160 will be removed and disposed of as radioactive waste (due to the potential of painted-over contamination) prior to demolition

1.1 Survey Unit Descriptions

The "A" Annex Report consists of rooms 144 through 167 (including the associated hallways, stairwells, and airlocks), the north end of the loading dock, and the building exterior (north, west, and east walls and roof)

Based on process history, characterization surveys and in-process surveys, the survey units were classified in accordance with MARSSIM and the Building 779 Cluster Closeout Radiological Survey Plan (CRSP)

"A" Annex consisted of three survey areas that were further broken down into fourteen survey units More detailed survey unit justifications are delineated in each survey unit package located in the project files

Table 1.1
Survey Unit Classifications

Survey Unit	Description	Justification for Classification	Class
77907	"A" annex exterior walls and roof	Class 2 due to the potential spread of contamination from outside areas (e g , solar ponds, Building 776 fire)	2
77908	Loading dock exterior walls and roof	Class 2 due to the potential spread of contamination from outside areas (e g , solar ponds, Building 776 fire)	2
77910	North wall airlocks	Class 2 due to the potential spread of contamination from outside areas (e g , solar ponds, Building 776 fire)	2
77919	East interior walls of loading dock	Class 3 because of low potential for contamination to exceed the $DCGL_W$	3
77921	Rooms 144/145/146/147/148/151	Class 1 due to radwaste storage, location within a CA , known contamination, & process history	1
77922	Room 150	Class 1 due to radwaste storage, location within a CA , known contamination, & process history	1

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Survey Unit	Description	Justification for Classification	Class
77923	Room 152	Class 1 due to radwaste storage, location within a CA , known contamination, & process history	1
77924	Room 154	Class 1 due to radwaste storage, location within a CA , known contamination, & process history	1
77925	Rooms 156/160/160A	Class 1 due to radwaste storage, location within a CA , known contamination, & process history	1
77926	Rooms153/153A/153B/155/157	Class 1 due to radwaste storage, location within a CA , known contamination, & process history	1
77927	Rooms 159/161/163	Class 1 due to radwaste storage, location within a CA , known contamination, & process history	1
77928	Rooms 163A/165/167/167A	Class 2 due to radwaste storage & location within a CA	2
77929	Rooms 162/164/166	Class 2 due to radwaste storage & location within a CA	2
77949	North end of the loading dock floor	Class 1 due to radwaste storage & transfer	1

1.2 Overview Maps

Figures 1 1 and 1 2 depict the location of the "A" Annex in the 779 Cluster, and an interior view of the "A" Annex, respectively

Figure 1.1
"A" Annex Exterior Overview Map

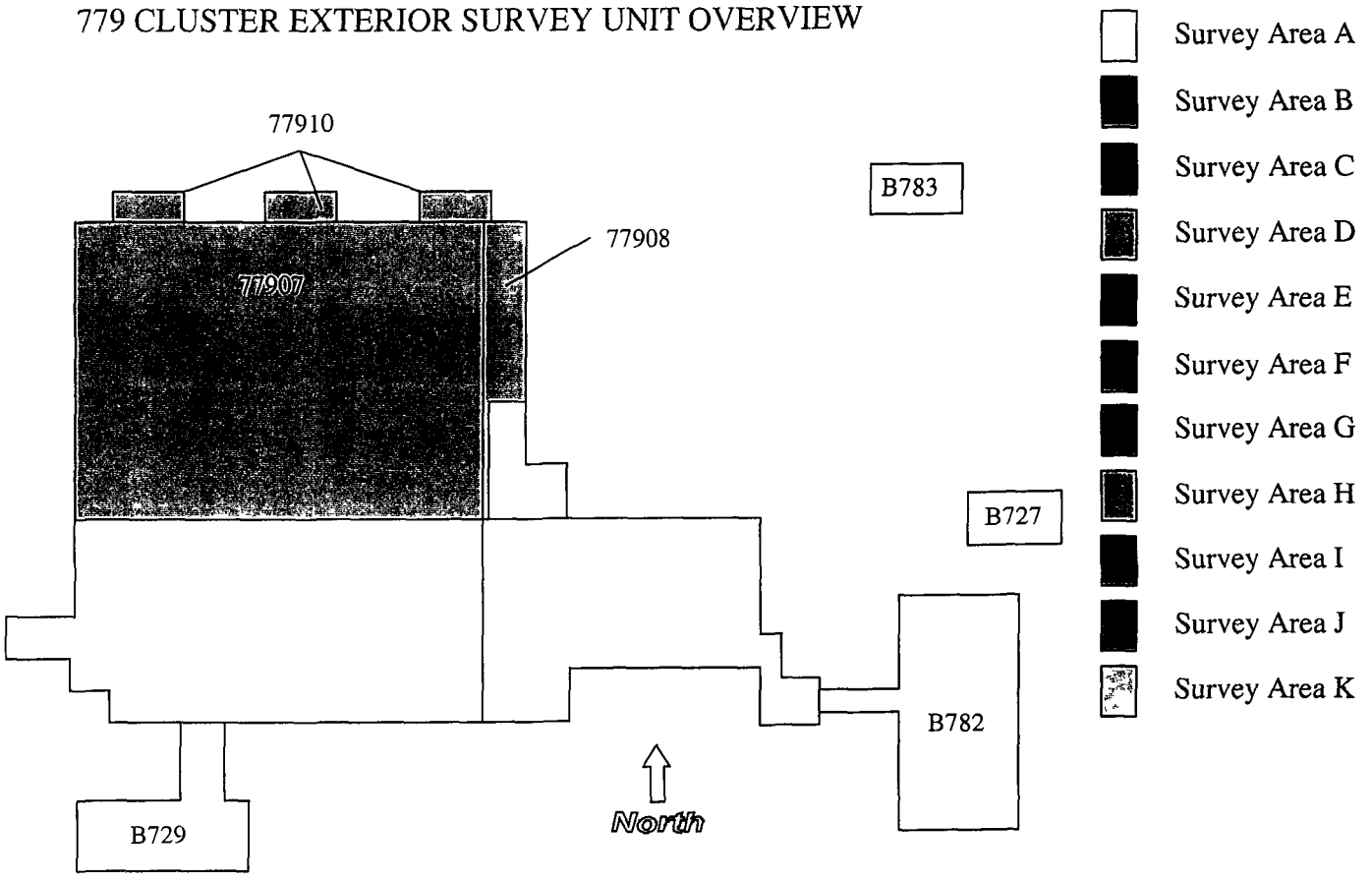
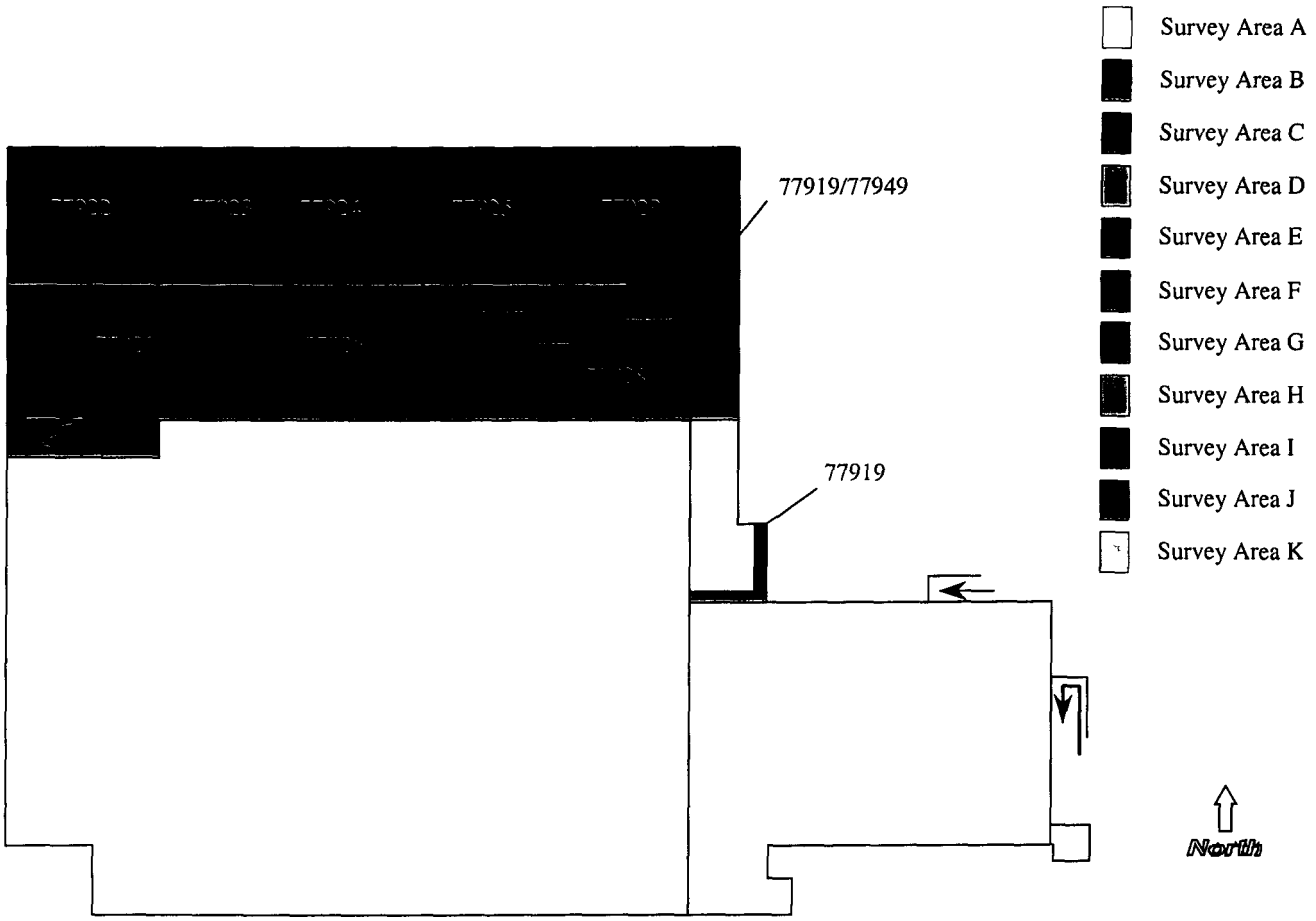


Figure 1.2
"A" Annex Interior Overview Map

779 FIRST FLOOR INTERIOR SURVEY UNIT OVERVIEW



2.0 Scope of Work

2.1 Paint/Surface Media Samples

Paint/surface media samples were obtained in 77907, 77908, 77910, 77921, 77922, 77927, 77928, and 77929 to ensure average contamination did not exist below painted surfaces or other forms of surface media such as roofing material, floor adhesive, or within the paint or roofing/adhesive material itself No samples were collected from 77923, 77924, 77925, 77926, or 77949 (Class 1) because the paint or surface media was removed prior to final survey In addition, no media samples were collected from the Class 3 area (77919) (not required per the CRSP)

No volumetric samples were collected due to the fact that there was no evidence (as discovered during the historical site assessment, characterization, and final status surveys) that contamination had migrated into cinder block, concrete, or any other base material and disappeared from the surface Total surface activity measurements and surface media sampling were utilized as the detection methods for any contamination that occurred on building surfaces

The sample collection method for coated surfaces (paint or adhesive) involved the collection of cover material to a depth where the underlying base material was exposed

The quantity of samples was determined based on MARSSIM statistical calculations to satisfy Impacted Class 1, 2 or 3 survey requirements The calculation methodology for the number of media samples is presented in the Closeout Radiological Survey Plan for the 779 Cluster (Section 5 2 6 2) Based on the pre-survey calculations included in each survey package, the following are required for each survey unit

- A minimum of 15 removable contamination measurements per 100 m^2 for Class 1 survey units
- A minimum of 15 removable contamination measurements per 1000 m^2 for Class 2 survey units
- No media samples are required for Class 3 survey units

Refer to Building 779 project files for details A portion of survey unit 77908 (the south end of the dock roof) was moved to survey unit 77906 and will be demolished with the main building Survey measurements 11 - 14 were moved from 77908 to 77906 This left 14 paint /media samples for 77908 It was verified by MARSSIM calculations using the actual standard deviation of the media samples for survey unit 77908 that only 13 measurements were required

Instrument calibration, maintenance, source check requirements, data reduction and MDC equations are controlled per applicable Kaiser Hill Analytical Services Division procedures

2.2 Removable Surface Contamination Surveys

Removable surface contamination surveys were obtained in each survey unit to ensure that removable contamination did not exist above the Building 779 Cluster applicable DCGL The quantity of removable contamination measurements was determined based on MARSSIM statistical calculations as presented in the Closeout Radiological Survey Plan for the 779 Cluster, RF/RMRS-97-123 UN (Section 5 2 6 2) Based on the pre-survey calculations included in each survey package, the following are required for each survey unit

- A minimum of 15 removable contamination measurements per 100 m^2 for Class 1 survey units
- A minimum of 15 removable contamination measurements per 1000 m^2 for Class 2 survey units
- A minimum of 15 removable contamination measurements for Class 3 survey units regardless of survey unit size

Refer to Building 779 project files for details A portion of survey unit 77908 the south end of the dock roof was moved to survey unit 77906 and will be demolished with the main building Survey measurements 11 - 14 were moved from 77908 to 77906 This left 14 paint /media samples for 77908 It was verified by MARSSIM calculations using the actual standard deviation of the removable measurements for survey unit 77908 that only 13 measurements were required

Smears were counted on a SAC-4 Instrument calibration, maintenance, source check requirements, data reduction and MDC equations are provided in 3-PRO-112-RSP-02 01, Revision 1, "Radiological Instrumentation"

2.3 Total Surface Activity Surveys

Total surface activity surveys were obtained in each survey unit to ensure the average total activity levels did not exist above the Building 779 Cluster $DCGL_W$s The number of total surface activity surveys was also determined based on MARSSIM statistical calculations as presented in the Closeout Radiological Survey Plan for the 779 Cluster (Section 5 2 6 2) Based on the pre-survey calculations included in each survey package, the following are required for each survey unit

- A minimum of 15 removable contamination measurements per 100 m^2 for Class 1 survey units
- A minimum of 15 removable contamination measurements per 1000 m^2 for Class 2 survey units
- A minimum of 15 removable contamination measurements for Class 3 survey units regardless of survey unit size

Refer to Building 779 project files A portion of survey unit 77908 the south end of the dock roof was moved to survey unit 77906 and will be demolished with the main building Survey measurements 11 - 14 were moved from 77908 to 77906 This left 14 paint /media samples for 77908 It was verified by MARSSIM calculations using the actual standard deviation of the total activity measurements for survey unit 77908 that only 13 measurements were required

The surveys were performed with an NE Electra with the 100 cm^2 DP6 detector The survey count time was ninety seconds Local area background determinations are discussed in Section 4 0 Instrument calibration, maintenance, source check requirements, as well as data reduction and MDC equations are provided in 3-PRO-112-RSP-02 01, Revision 1, "Radiological Instrumentation"

The Electra MDC is verified in a radiological engineering site operations technical basis document entitled "Methods to Demonstrate Compliance with Performance Requirements for Swipe Counting and Portable Contamination Survey Instrumentation used to Evaluate Property and Waste for Unrestricted Release", dated June 7, 1995

2.4 Scan Surveys

Surface scans were conducted in each survey unit per two methods 1) with the position-sensitive SCM system and 2) with conventional hand-held NE Electra dual scintillation detectors The two methods are described in the following sections

2.4.1 SCM/SIMS Scan Surveys

The majority of the surface scans were conducted using the Surface Contamination Monitor/Survey Information Management System (SCM/SIMS) developed by Shonka Research Associates, Inc (SRA) The SCM/SIMS system consists of a position sensitive proportional counter (PSPC) coupled to a computerized data acquisition system The PSPC is a long detector that acts as an array of many small radiation detectors This allows the instrument to measure more area per unit time than a smaller detector and still separate out localized areas of contamination

The SCM/SIMS detector surface area is 1800 cm^2 The choice of detectors was based on the floor and wall space available and the interferences in the area To survey the walls and floor areas, corner detectors were employed or hand-held instruments were utilized (refer to section 2 4 2) The corner detector is a PSPC used in a static count mode with data binned in 5-cm increments The corner detector accumulates data for ten seconds The longer count time eliminated the need for a recount The output of the corner detector is integrated into the SIMS software

Surveys were conducted in accordance with equipment operation and calibration procedures developed by SRA and incorporated in the Millennium Services, Inc Quality Assurance Plan Detector efficiencies were determined with a NIST traceable Plutonium-238 source with an active area of approximately 50 cm^2 and an alpha energy of 5 5 MeV The energy of the source is similar to the 5 1 MeV of Plutonium-239, the principle isotope of the primary suspected contaminant Periodic quality control checks were performed for each detector in use, and used to establish the efficiency for the detectors based on data that spanned the use of that detector during the survey (refer to Section 5 0) All quality control checks were performed under the same operating and environmental conditions as the surveys in accordance with applicable operating procedures

The SCM/SIMS sensitivity for the surveys performed in the "A" annex is documented in the B779 project file The Minimum Detectable Concentration for alpha surveys for 100 cm^2 areas is 81 3 dpm (refer to "Evaluation of Surface Contamination Monitor/Survey Information Management (SCM/SIMS) for the identification of contamination against the $DCGL_{EMC}$ for the 779 Closure Project at the Rocky Flats Environmental Technology Site") All RFETS-specified instrument performance requirements are satisfied with SCM/SIMS survey methodology based on data discussion provided in Appendix 5 of the CRSR for Building 729, RF/RMRS-99-358 UN

2.4.2 NE Electra Scan Surveys

Areas that were not scanned with the SCM/SIMS were scanned with the hand-held NE Electra with 100 cm^2 DP6 probes or NE Electra Plus with 600 cm^2 DP8 probes

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The scan rate for the DP6 was established as 1 5 inches per second in order to comply with the recommendations for probabilities of detection provided in ANSI N13 12, *Draft American National Standards Control of Radioactive Surface Contamination on Materials, Equipment, and Facilities to be Released for Uncontrolled Use* Scanned areas in excess of 225 dpm/100 cm^2 were flagged If no flags were identified during the scan, the scan result was recorded as <225 dpm/100 cm^2 (refer to Tables 7 5 to 7 18)

Areas scanned with the DP8 detectors consisted of eight-second static counts In the event that the eight-second count exceeded 225 dpm/100 cm^2, two additional measurements were performed at the same location If one of the two additional measurements exceeded 225 dpm/100 cm^2, an investigation was performed

Differentiation between SCM and handheld instrument surveys is captured within each individual survey package that is maintained in the project files

3.0 DCGLs

The surface contamination criteria from DOE Order 5400 5 were used as the DCGLs for the final survey The applicable transuranic $DCGL_W$ for removable contamination, total surface activity measured by direct surface emission and paint/media samples are as follows

Category	$DCGL_W$ Removable Alpha (dpm/100 cm^2)	$DCGL_W$ Total Alpha (dpm/100 cm^2)	$DCGL_{EMC}$ Total Alpha (dpm/100 cm^2)
Transuranic	20	100	300
Uranium	N/A	5000	15,000

4.0 Background

Final radiological surveys of the "A" annex were focused on alpha emitting isotopes, principally Plutonium-239, and Plutonium-240 Natural activity present in construction materials was not expected to contribute a significant amount to the field measurements Historical data from other RFETS building indicates that surface emission rates from concrete, typically the material containing the highest quantities of naturally-occurring alpha-emitting isotopes, would contribute negligible activity when compared to the $DCGL_{EMC}$ Therefore, no material background subtract was performed for alpha surface scan measurements, and results were compared directly to the applicable $DCGL_{EMC}$ defined in Section 3 0

For total surface activity data collected with the NE Electra, a ninety-second background measurement was collected at each total surface activity location The average of these measurements was calculated, and the mean value subtracted from total surface activity measurements to obtain the net total surface activity results Refer to the project files for local area background results

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Paint/Surface media samples were analyzed by alpha spectroscopy methods Individual isotopic data results are contained in Attachments A through N Transuranic isotopes are not present in natural radioactivity, therefore no background concerns exist Uranium isotopes, though present in nature, are not expected to exist in significant quantities in paint/surface media samples As in surface activity measurements, total reported activity from paint/surface media sample analyses was evaluated against the applicable uranium or transuranic $DCGL_W$ defined in Section 3 0

Other than instrument background, which is quantified prior to analysis, background is not a factor during performance of removable contamination surveys Reported values from the removable contamination surveys were evaluated against the applicable $DCGL_W$ defined in Section 3 0

5.0 Quality Assurance/Quality Control

Quality control for each type of instrument utilized in the "A" annex survey is discussed in the sections below Additional quality control elements include the Software Quality Control Checklists (Verification of Calculations) These documents were generated for each survey unit (refer to Building 779 Project files) to verify calculations within spreadsheets that ultimately output the values directly compared with DCGLs (Attachments A - N) A data quality assessment (DQA) was also generated to discuss how the project implemented MARSSIM data quality guidelines and applicable DOE quality requirements (Attachment Q)

5.1 Paint/Surface Media Samples

Measures of laboratory precision and accuracy were assessed per applicable laboratory procedures All QA data indicated that sample results were valid (refer to Attachment Q, Data Quality Assessment)

5.2 Removable Surface Contamination Surveys

The instruments utilized for removable surface contamination analysis (Eberline SAC-4) were calibrated with NIST-traceable sources A daily background and QC check was also performed All background and QC checks were within required tolerances as delineated in the Building 779 CRSP RF/RMRS-97-123 UN (also refer to Attachment Q, Data Quality Assessment)

5.3 Total Surface Activity Surveys

An additional 5% of total surface activity measurements were obtained for quality control purposes (refer to Attachments A through N) The results from these measurements were compared to the applicable $DCGL_W$ to ensure survey compliance (i e , all QC measurements were less than $DCGL_W$) All QC measurements were less than $DCGL_W$ (refer to Attachment Q, Data Quality Assessment)

5.4 Scan Surveys

5.4 1 SCM/SIMS Scan Surveys

Quality control surveys for SCM/SIMS scans were performed with a NIST traceable Plutonium-238 source with an activity of 194,400 dpm The source, RFETS ID# RS3911, Manufacturer's ID ER716, is a 71 mm x 71 mm (approximately 50 cm^2) plated source The source manufacturer's certificate is in the 779 Closure Project file Quality control surveys consisted of a minimum of three measurements of the source by the detector in the configuration used in the actual survey SCM quality control surveys were performed with the source on the floor or wall and the detector assembly moving at the appropriate survey speed (i e , 0 4 to 0 8 inches/sec) Corner detector quality control surveys consisted of measurements of the source placed on a surface and the data acquisition set for the survey time (i e , 8 to 10 seconds)

A quality control survey was performed at the beginning and end of each detector use each day and periodically during the surveys The response of the detector over the duration of its use became the basis for the detector's efficiency Additionally, each survey was evaluated to ensure that it was bracketed by acceptable quality control surveys At least two of the three measurements must fall within the specified tolerance (within 20% of the mean of all quality control surveys for each specific detector) in order for the data to be considered valid The above criteria were satisfied Therefore, the detector results were considered valid

Source checks were conducted daily prior to start of survey, whenever the detector configuration was changed, and whenever any other electronic adjustments or maintenance was performed The mean of the valid quality control surveys, determined from all acceptable results over the duration of the survey, was used to establish the efficiency for a specific detector Attachment P includes the quality control charts for the SCM/SIMS detectors used during the survey

5 4 2 NE Electra Scan Surveys

Performance checks were performed on the NE Electra prior to field use The results were required to fall within the established range (± 20% in accordance with the applicable Radiological Safety Procedures) in order for the instrument and the associated data to be considered valid (refer to Attachment Q, Data Quality Assessment)

6.0 Investigation Methodology

Follow up investigations were conducted for each scan result in excess of 75% of the $DCGL_{EMC}$ (225 dpm/100cm^2) by performing a survey of the flagged area with a hand held instrument, the NE Electra with a DP6 probe

Investigation surveys utilizing the NE Electra were performed by first scanning the surrounding suspect area to determine if any elevated activity areas could be identified Following the scan, a shielded local area background measurement (ninty second count) and an unshielded direct measurement (ninty second count) were obtained in the area of highest activity identified during the scan

Remediation and a follow-up survey were performed at each confirmed location that produced an NE Electra result in excess of 225 dpm/100 cm^2 (as described in Tables 7 5 to 7 18)

Each investigation measurement was documented on an investigation form In some cases, more than one investigation result was documented for a given grid All scan investigation results are presented in Tables 7 5 to 7 18

In survey unit 77907, an investigation of one paint/media result in excess of the $DCGL_W$ (100 dpm/100 cm^2) was performed by bounding the elevated sample location with eight additional samples within the affected m^2 to ensure the $DCGL_W$ for that m^2 was not exceeded The average uranium and transuranic values for the eight additional media samples and the one original media sample are less than 75% of the applicable $DCGL_W$ and all measurements were verified not to exceed the applicable $DCGL_{EMC}$ Therefore based on the B779 Closeout Radiological Survey Plan, the survey unit is acceptable In addition, the sign test was performed to assure that the mean concentration did not exceed the $DCGL_W$ over the survey unit The sign test passed (i e the null hypothesis was rejected), thus the area was deemed acceptable in accordance with MARSSIM (refer to Attachment A)

During the removal of paint from rooms 152/154/160, a temporary wall was erected to prevent the spread of contamination into areas that were being final surveyed During the hydrolasing process water migrated under the temporary wall All areas that had water leakage were re-surveyed, and the most recent results were reported No contamination was detected during this incident

7.0 Survey Results

7.1 Paint/Surface Media Samples

Paint/surface media samples were obtained in 77907, 77908, 77910, 77921, 77922, 77927, 77928, & 77929 to ensure contamination in excess of the established DCGLs did not exist below painted surfaces or other forms of surface media such as roofing material, floor adhesive, or within the paint or roofing/adhesive material itself These results were converted to units of surface activity (dpm/100 cm^2) in order to compare to the DCGLs No samples were collected from 77923, 77924, 77925, 77926, or 77949 (Class 1) because the paint or surface media was removed prior to final survey In addition, in accordance with the CRSP, no media samples were collected from the Class 3 area (77919)

Alpha spectroscopy was performed to determine the activity of Uranium-233/234, Uranium-235, Uranium-238, Plutonium-239/240, and Americium-241 Values for each isotope(s) are reported separately The data for the survey units where media samples were obtained was below the applicable total uranium and total transuranic $DCGL_W$ The number of media samples obtained was verified to be adequate by re-calculating the required number of samples with the actual survey unit sample standard deviation (refer to the "Post Survey Paint/Media Sample Summary Statistics Calculation Verification Worksheet" in the Building 779 project files, for each applicable survey unit) Tables 7 1 and 7 2 summarize the results of the paint/surface media samples

Table 7.1
Paint/Surface Media Summary Results for Transuranics

	Alpha Activity (dpm/100 cm^2)				
Survey Unit	Minimum	Maximum	Mean	Std. Dev.	$DCGL_W$
77907	-40 9	37 2 *	4 3	16 1	100
77908	0 1	48 5	11 5	14 4	100
77910	0 1	0 8	0 3	0 2	100
77921	0 2	19 3	5 7	5 9	100
77922	-0 1	25 5	5 3	6 4	100
77927	0 0	13 9	3 7	4 4	100
77928	0 0	5 8	2 2	2 1	100
77929	0 1	0 9	0 4	0 2	100

* The original maximum value for this survey was 164 9 dpm/100 cm^2 prior to the investigation Refer to the data summary in Attachment A for additional details

Table 7.2
Paint/Surface Media Summary Results for Uranium

	Alpha Activity (dpm/100 cm^2)				
Survey Unit	Minimum	Maximum	Mean	Std. Dev.	$DCGL_W$
77907	1 1	259 5	71 1	66 9	5000
77908	0 4	134 9	49 4	37 8	5000
77910	0 0	10 6	3 7	4 2	5000
77921	0 2	40 8	17 0	12 1	5000
77922	2 0	57 9	15 7	18 5	5000
77927	4 2	72 0	27 3	25 5	5000
77928	0 3	323 2	84 4	101 7	5000
77929	0 5	6 1	2 0	1 3	5000

Detailed sampling instructions and paint/surface media sample results are on file in the Building 779 project files

7.2 Removable Surface Contamination Surveys

Removable contamination measurements were obtained at each accessible grid location in accordance with approved instructions in each survey package The minimum required removable contamination measurements were obtained for each survey unit Removable contamination results for each survey unit are presented in Attachments A through N (except for roof investigation data) Surveys were performed at each location from which paint/surface media samples were obtained, ensuring that the minimum required number of smears was collected for each survey unit For those points, measurements were obtained prior to and after the media sample For those areas from which no paint/media sample was obtained, a single removable contamination measurement was obtained The results of all smears show that the removable contamination levels met the $DCGL_W$ described in Section 3 0 The number of

removable activity measurements obtained was verified to be adequate by re-calculating the required number of measurements with the actual survey unit measurement standard (refer to the "Post Survey Removable Contamination Summary Statistics Calculation Verification Worksheet" in the Building 779 project files, for each survey unit) Table 7 3 summarizes the results of removable surface contamination surveys

Table 7.3
Removable Surface Contamination Summary Results

	Alpha Activity (dpm/100 cm^2)				
Survey Unit	**Minimum**	**Maximum**	**Mean**	**Std Dev**	**DCGL**
77907	-0 9	2 4	0 8	1 3	20
77908	-1 5	1 5	-0 8	0 9	20
77910	-0 9	2 1	0 5	0 9	20
77919	-0 3	2 7	0 3	1 0	20
77921	0	6	1	2	20
77922	-0 6	3 9	0 0	1 2	20
77923	-0 9	2 1	-0 1	1 0	20
77924	-0 9	2 1	-0 1	1 0	20
77925	-1 5	1 2	-0 4	0 8	20
77926	-0 9	4 2	0 1	1 3	20
77927	-0 6	2 4	0 4	1 3	20
77928	0 0	1 5	0 4	0 7	20
77929	-0 3	2 7	0 1	0 8	20
77949	-0 3	2 7	0 4	1 0	20

Detailed survey instructions and removable surface contamination results are on file in the Building 779 project files

7.3 Total Surface Activity Surveys

Total surface activity measurements were obtained in accordance with approved instructions in each survey package, at each accessible grid location, ensuring that the minimum required total surface activity measurements were obtained for each survey unit Total surface activity survey results for each survey unit are presented in Attachments A through N (except for roof investigation data) Total surface activity surveys were performed at each location where paint/surface media samples were obtained For those areas where no media sample was obtained, a single total surface activity measurement was obtained The results of all surveys showed that all total surface activity levels were less than the $DCGL_W$ described in Section 3 0 The number of total surface activity measurements obtained was verified to be adequate by re-calculating the required number of measurements with the actual survey unit standard deviation (refer to the "Post Survey Total Surface Activity Summary Statistics Calculation Verification Worksheet" in the Building 779 project files, for each survey unit) Table 7 4 summarizes the total surface contamination survey results

Table 7.4
Total Surface Contamination Summary Results

	Alpha Activity (dpm/100 cm^2)				
Survey Unit	**Minimum**	**Maximum**	**Mean**	**Std Dev.**	**$DCGL_W$**
77907	12 2	66 4	27 5	15 9	100
77908	-2 4	51 7	19 9	15 5	100
77910	-4 5	65 5	14 2	18 6	100
77919	0 9	29 1	12 3	9 1	100
77921	-4 5	63 2	17 0	15 4	100
77922	0 3	42 2	11 8	10 3	100
77923	4 7	52 1	23 9	14 8	100
77924	-0 9	45 1	19 1	14 8	100
77925	2 8	65 0	22 2	15 9	100
77926	-2 7	39 3	14 3	12 0	100
77927	-9 0	61 4	10 6	16 6	100
77928	-8 2	40 0	8 9	9 8	100
77929	-4 5	25 9	7 5	8 4	100
77949	-5 6	35 3	11 6	13 3	100

Detailed survey instructions and total surface contamination results are on file in the Building 779 project files

7.4 Scan Surveys

Scan surveys were performed at the required density in accordance with approved instructions in each survey package The scan results are presented in Tables 7 5 through 7 18 Survey results are grouped by survey unit Each survey unit is divided into a number of subunits, which is typically represented by a single surface (e g floor, wall < 2 meters, wall > 2 meters, ceiling, etc) Within each subunit, survey(s) are performed For SCM scan surveys, a report is automatically generated For the NE Electra scan surveys, the results are reported as < 225 dpm/100 cm^2 (given that no areas are flagged for investigation) For both scan methods, survey information is documented on survey forms and maps A consistent numbering system (per the survey unit numbers outlined in the Final Survey Breakdown Structure, Rev 2) is used to identify the survey unit, subunit, survey number, and type of detector used

The scan survey overlay maps (refer to Attachment O) delineate the subunit locations so that all surveys can be traced to the location surveyed The yellow-shaded areas represent areas requiring 100% scan The green-shaded areas represent requiring 50% scans The blue-shaded areas represent areas requiring 10% scan The required scan frequency for each survey unit, per the Closeout Radiological Survey Plan for the 779 Cluster was verified

Due to the low expected count rate and the random nature of radioactivity, a low occurrence of individual 100 cm^2 area false positive results is expected This phenomenon is amplified when using the SCM/SIMS system due to the large amounts of data generated (i e a result is recorded for each 25 cm^2 area scanned) The utilization of a recount detector allows for a rapid evaluation of an area that indicates a higher than

normal value If one detector indicates a slightly elevated reading but the second detector does not confirm the event, the measurement is likely a false positive Readings that approach an investigation level with either detector are averaged with the results from the other detector An average value in excess of 225 dpm/100 cm^2 requires an investigation

Surveys taken with the SCM operating in the timer mode are presented as a single survey Survey time for those detectors have been increased to minimize the probability of false positives Timer mode surveys are performed when the cart mounted motor driven SCM can not physically access an area due to area size, interference, or accessibility The timer mode setting was 10 seconds, providing the same surface area measurement as the time measured by both the primary and recount operating at 1cm/sec

7 4.1 Survey Unit 77907 Scan and Investigation Data Summary

Table 7 5 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77907

Table 7.5
Survey Unit 77907 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
00720100	7/19/99	271	00720190	271	28	No	n/a
				225	28	No	n/a
				237	24	No	n/a
				228	0	No	n/a
				232	12	No	n/a
				229	20	No	n/a
00720200	7/19/99	116	n/a	n/a	n/a	No	n/a
00720300	7/19/99	193	n/a	n/a	n/a	No	n/a
00720400	7/19/99	232	00720490	232	68	No	n/a
00720500	7/19/99	2321	00720590	2321	58	No	n/a
				255	24	No	n/a
				232	60	No	n/a
				580	36	No	n/a
00720600	7/19/99	232	00720690	232	32	No	n/a
00720700	7/19/99	232	00720790	232	12	No	n/a
00720800	7/22/99	348	00720890	348	20	No	n/a
				232	28	No	n/a
				232	44	No	n/a
				232	48	No	n/a
				231	40	No	n/a
				232	20	No	n/a
				232	20	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
00720800	7/22/99	348	00720890	232	24	No	n/a
				231	28	No	n/a
00720900	7/22/99	258	00720990	258	4	No	n/a
				232	4	No	n/a
				232	48	No	n/a
				232	60	No	n/a
				227	56	No	n/a
				232	24	No	n/a
				232	32	No	n/a
				230	64	No	n/a
00721000	7/22/99	348	00721090	348	84	No	n/a
				232	64	No	n/a
				232	92	No	n/a
				270	40	No	n/a
				270	60	No	n/a
				270	60	No	n/a
				232	60	No	n/a
				232	32	No	n/a
				232	40	No	n/a
				264	52	No	n/a
				270	56	No	n/a
				271	76	No	n/a
				232	32	No	n/a
00721100	7/22/99	541	00721190	541	64	No	n/a
				306	16	No	n/a
				232	8	No	n/a
				364	40	No	n/a
				232	16	No	n/a
				232	8	No	n/a
				271	36	No	n/a
				232	12	No	n/a
				263	12	No	n/a
				229	48	No	n/a
				256	60	No	n/a
				314	40	No	n/a
				271	16	No	n/a
				348	36	No	n/a
				271	10	No	n/a
				271	10	No	n/a
				348	36	No	n/a
				232	8	No	n/a
				270	52	No	n/a
00721200	7/22/99	348	00721290	232	84	No	n/a
				232	60	No	n/a
				263	36	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
00721200	7/22/99	348	00721290	259	32	No	n/a
				232	28	No	n/a
				232	24	No	n/a
				271	32	No	n/a
				271	72	No	n/a
				232	84	No	n/a
				263	80	No	n/a
				348	116	No	n/a
				232	68	No	n/a
				261	72	No	n/a
				266	60	No	n/a
				305	28	No	n/a
				232	52	No	n/a
				261	52	No	n/a
00721301	8/25/99	339	00721390	339	32	No	n/a
				305	36	No	n/a
				271	52	No	n/a
				271	44	No	n/a
				237	48	No	n/a
				237	16	No	n/a
				237	48	No	n/a
				237	84	No	n/a
				237	80	No	n/a
00721401	8/25/99	237	00721490	237	44	No	n/a
				237	36	No	n/a
				237	32	No	n/a
00721500	7/22/99	309	00721590	309	40	No	n/a
				295	32	No	n/a
				232	24	No	n/a
				231	28	No	n/a
				232	52	No	n/a
				271	20	No	n/a
				258	88	No	n/a
				232	40	No	n/a
				271	40	No	n/a
				232	24	No	n/a
				268	72	No	n/a
				287	40	No	n/a
				232	60	No	n/a
				231	44	No	n/a
				232	76	No	n/a
				232	88	No	n/a
				271	52	No	n/a
00765100	7/26/99	270	00765190	270	20	No	n/a
				270	24	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
00765300	7/26/99	154	n/a	n/a	n/a	No	n/a
00765400	7/26/99	348	00765490	348	84	No	n/a
				230	60	No	n/a
00765500	7/27/99	232	00765590	232	52	No	n/a
00765600	7/27/99	309	00765690	309	28	No	n/a
				232	-4	No	n/a
00765700	7/27/99	270	00765790	270	36	No	n/a
				232	36	No	n/a
00765800	7/27/99	265	00765890	265	80	No	n/a
00766201	9/2/99	271	00766291	271	56	No	n/a
				252	72	No	n/a
				232	72	No	n/a
00766501	9/2/99	266	00766591	266	52	No	n/a
				232	78	No	n/a
				232	120	No	n/a
				232	36	No	n/a
				232	72	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7.4.2 Survey Unit 77908 Scan and Investigation Data Summary

Table 7 6 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77908

Table 7.6
Survey Unit 77908 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
00820100	10/22/99	261	00820190	261	40	No	n/a
				251	40	No	n/a
				236	52	No	n/a
00820191	10/28/99	<225	n/a	n/a	n/a	No	n/a
00820200	10/22/99	472	00820290	472	36	No	n/a
				356	16	No	n/a
				236	20	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
00820200	10/22/99	472	00820290	331	24	No	n/a
				385	48	No	n/a
				416	48	No	n/a
				298	64	No	n/a
				261	80	No	n/a
00820300	10/22/99	181	n/a	n/a	n/a	No	n/a
00820500	10/22/99	218	n/a	n/a	n/a	No	n/a
00820600	10/22/99	192	n/a	n/a	n/a	No	n/a
00820700	10/22/99	167	n/a	n/a	n/a	No	n/a
00820800	10/22/99	181	n/a	n/a	n/a	No	n/a
00820900	10/22/99	254	00820990	254	20	No	n/a
00821100	10/22/99	120	n/a	n/a	n/a	No	n/a
00821200	10/22/99	109	n/a	n/a	n/a	No	n/a
00821300	10/22/99	181	n/a	n/a	n/a	No	n/a
00821400	10/22/99	145	n/a	n/a	n/a	No	n/a
00821401	10/25/99	108	n/a	n/a	n/a	No	n/a
00821501	10/27/99	156	n/a	n/a	n/a	No	n/a
00821601	10/27/99	141	n/a	n/a	n/a	No	n/a
00821700	10/25/99	618	00821790	618	618	Yes	44
00821900	10/25/99	1127	00821990	1127	16	No	n/a
00822000	10/25/99	189	n/a	n/a	n/a	No	n/a
00865100	10/22/99	284	00865190	284	72	No	n/a
				284	60	No	n/a
				250	60	No	n/a
				250	100	No	n/a
				225	32	No	n/a
				236	48	No	n/a
				236	52	No	n/a
00865200	10/22/99	425	00865290	425	148	No	n/a
				255	104	No	n/a
				261	64	No	n/a
				255	64	No	n/a
				255	76	No	n/a
				255	80	No	n/a
				239	80	No	n/a
				225	108	No	n/a
00865300	10/22/99	212	n/a	n/a	n/a	No	n/a
00865500	10/22/99	254	00865590	254	24	No	n/a
00865600	10/22/99	218	n/a	n/a	n/a	No	n/a
00865700	10/22/99	156	n/a	n/a	n/a	No	n/a
00865800	10/22/99	160	n/a	n/a	n/a	No	n/a
00865900	10/22/99	203	n/a	n/a	n/a	No	n/a
00866000	10/22/99	201	n/a	n/a	n/a	No	n/a
00866100	10/22/99	236	00866190	236	8	No	n/a
00866300	10/22/99	130	n/a	n/a	n/a	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
00866400	10/22/99	148	n/a	n/a	n/a	No	n/a
00866500	10/22/99	141	n/a	n/a	n/a	No	n/a
00866501	10/25/99	105	n/a	n/a	n/a	No	n/a
00866601	10/27/99	141	n/a	n/a	n/a	No	n/a
00866700	10/25/99	156	n/a	n/a	n/a	No	n/a
00866800	10/25/99	142	n/a	n/a	n/a	No	n/a
00866900	10/25/99	167	n/a	n/a	n/a	No	n/a
00867000	10/25/99	94	n/a	n/a	n/a	No	n/a
00867100	10/15/99	236	00867190	236	8	No	n/a
00867200	10/25/99	156	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7.4.3 Survey Unit 77910 Scan and Investigation Data Summary

Table 7 7 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77910

Table 7.7
Survey Unit 77910 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
01000100	8/28/99	232	01000190	232	33	No	n/a
				232	29	No	n/a
				230	52	No	n/a
01000201	10/25/99	3527	01000292	3527	3282	Yes	16
				238	20	No	n/a
				458	480	Yes	64
01000291	10/28/99	<225	n/a	n/a	n/a	No	n/a
01000301	10/25/99	203	n/a	n/a	n/a	No	n/a
01000390	10/27/99	<225	n/a	n/a	n/a	No	n/a
01020100	8/28/99	77	n/a	n/a	n/a	No	n/a
01020190	9/22/99	<225	n/a	n/a	n/a	No	n/a
01020200	8/28/99	135	n/a	n/a	n/a	No	n/a
01020300	8/28/99	116	n/a	n/a	n/a	No	n/a
01020400	8/28/99	154	n/a	n/a	n/a	No	n/a
01020500	8/31/99	77	n/a	n/a	n/a	No	n/a
01020590	9/22/99	<225	n/a	n/a	n/a	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
01020600	8/31/99	<135	n/a	n/a	n/a	No	n/a
01020700	8/31/99	154	n/a	n/a	n/a	No	n/a
01020801	8/31/99	192	n/a	n/a	n/a	No	n/a
01020991	11/2/99	<225	n/a	n/a	n/a	No	n/a
01021001	10/25/99	178	n/a	n/a	n/a	No	n/a
01021090	10/27/99	<225	n/a	n/a	n/a	No	n/a
01021101	10/25/99	436	01021191	436	28	No	n/a
01021192	10/28/99	<225	n/a	n/a	n/a	No	n/a
01021201	10/25/99	189	n/a	n/a	n/a	No	n/a
01021290	10/27/99	<225	n/a	n/a	n/a	No	n/a
01065100	8/28/99	116	n/a	n/a	n/a	No	n/a
01065200	8/31/99	<225	n/a	n/a	n/a	No	n/a
01065301	10/25/99	106	n/a	n/a	n/a	No	n/a
01085100	8/28/99	154	n/a	n/a	n/a	No	n/a
01085200	8/31/99	193	n/a	n/a	n/a	No	n/a
01085301	10/25/99	141	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7.4.4 Survey Unit 77919 Scan and Investigation Data Summary

Table 7 8 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77919

Table 7.8
Survey Unit 77919 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
01920100	10/22/99	215	n/a	n/a	n/a	No	n/a
01920200	10/22/99	178	n/a	n/a	n/a	No	n/a
01920291	10/28/99	<225	n/a	n/a	n/a	No	n/a
01920300	10/22/99	178	n/a	n/a	n/a	No	n/a
01920400	10/25/99	218	n/a	n/a	n/a	No	n/a
01920990	10/30/99	<225	n/a	n/a	n/a	No	n/a
01921090	10/30/99	<225	n/a	n/a	n/a	No	n/a
01921100	10/25/99	130	n/a	n/a	n/a	No	n/a
01921200	10/25/99	218	n/a	n/a	n/a	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
01965100	10/22/99	254	01965190	254	16	No	n/a
01965200	10/22/99	145	n/a	n/a	n/a	No	n/a
01965300	10/22/99	143	n/a	n/a	n/a	No	n/a
01965400	10/22/99	183	n/a	n/a	n/a	No	n/a
01965500	10/25/99	145	n/a	n/a	n/a	No	n/a
01965600	10/25/99	122	n/a	n/a	n/a	No	n/a
01965800	10/25/99	130	n/a	n/a	n/a	No	n/a
01965900	10/25/99	145	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7.4.5 Survey Unit 77921 Scan and Investigation Data Summary

Table 7 9 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77921

Table 7.9
Survey Unit 77921 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02100190	10/5/99	<225	n/a	n/a	n/a	No	n/a
02100200	9/1/99	201	n/a	n/a	n/a	No	n/a
02100290	9/9/99	<225	n/a	n/a	n/a	No	n/a
02100300	9/1/99	277	02100390	277	40	No	n/a
				267	16	No	n/a
				249	16	No	n/a
				241	8	No	n/a
02100400	9/1/99	289	02100490	289	36	No	n/a
02100491	10/5/99	<225	n/a	n/a	n/a	No	n/a
02100501	10/18/99	218	n/a	n/a	n/a	No	n/a
02100592	10/19/88	<225	n/a	n/a	n/a	No	n/a
02100601	10/18/99	181	n/a	n/a	n/a	No	n/a
02100700	9/1/99	352	02100791	352	16	No	n/a
				302	4	No	n/a
				252	-4	No	n/a
				252	-4	No	n/a
				252	-4	No	n/a
02100790	9/8/99	<225	n/a	n/a	n/a	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02100800	9/1/99	252	02100890	252	24	No	n/a
02100900	9/1/99	352	02100990	352	88	No	n/a
				252	8	No	n/a
				252	16	No	n/a
				252	16	No	n/a
				252	8	No	n/a
				252	14	No	n/a
				251	40	No	n/a
				251	32	No	n/a
				226	28	No	n/a
				226	32	No	n/a
02101000	9/1/99	301	02101090	301	28	No	n/a
				251	36	No	n/a
				251	8	No	n/a
				251	16	No	n/a
				251	12	No	n/a
				226	-4	No	n/a
				251	-8	No	n/a
02101101	10/18/99	214	n/a	n/a	n/a	No	n/a
02101200	9/1/99	226	02101290	226	28	No	n/a
02101300	9/1/99	352	02101391	352	57	No	n/a
				302	36	No	n/a
				252	4	No	n/a
				252	24	No	n/a
02101390	9/8/99	<225	n/a	n/a	n/a	No	n/a
02101490	9/14/99	<225	n/a	n/a	n/a	No	n/a
02120100	8/31/99	201	n/a	n/a	n/a	No	n/a
02120190	9/8/99	<225	n/a	n/a	n/a	No	n/a
02120200	8/31/99	251	02120290	251	20	No	n/a
				251	0	No	n/a
				226	20	No	n/a
02120291	9/8/99	<225	n/a	n/a	n/a	No	n/a
02120300	8/31/99	251	02120390	251	16	No	n/a
02120391	9/9/99	<225	n/a	n/a	n/a	No	n/a
02120400	8/31/99	226	02120490	226	44	No	n/a
02120500	8/31/99	150	n/a	n/a	n/a	No	n/a
02120590	9/8/99	<225	n/a	n/a	n/a	No	n/a
02120600	8/31/99	201	n/a	n/a	n/a	No	n/a
02120690	9/8/99	<225	n/a	n/a	n/a	No	n/a
02120700	8/31/99	201	n/a	n/a	n/a	No	n/a
02120800	8/31/99	956	02120890	956	336	Yes	24
02120891	9/8/99	<225	n/a	n/a	n/a	No	n/a
02120900	8/31/99	251	02120990	251	16	No	n/a
				251	44	No	n/a
				251	44	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02120900	8/31/99	251	02120990	251	36	No	n/a
				251	32	No	n/a
				251	32	No	n/a
02121001	9/30/99	193	n/a	n/a	n/a	No	n/a
02121091	10/4/99	<225	n/a	n/a	n/a	No	n/a
02121190	9/9/99	<225	n/a	n/a	n/a	No	n/a
02121201	9/14/99	174	n/a	n/a	n/a	No	n/a
02121290	9/8/99	<225	n/a	n/a	n/a	No	n/a
02121300	9/1/99	150	n/a	n/a	n/a	No	n/a
02121390	9/8/99	<225	n/a	n/a	n/a	No	n/a
02121391	9/14/99	<225	n/a	n/a	n/a	No	n/a
02121392	9/14/99	<225	n/a	n/a	n/a	No	n/a
02121393	10/27/99	<225	n/a	n/a	n/a	No	n/a
02121400	9/1/99	178	n/a	n/a	n/a	No	n/a
02121490	9/14/99	<225	n/a	n/a	n/a	No	n/a
02121501	9/14/99	<225	n/a	n/a	n/a	No	n/a
02121600	8/31/99	252	02121690	252	4	No	n/a
02121691	9/9/99	<225	n/a	n/a	n/a	No	n/a
02121700	8/31/99	301	02121790	252	20	No	n/a
				302	8	No	n/a
				249	24	No	n/a
				252	24	No	n/a
				301	12	No	n/a
02121791	9/8/99	<225	n/a	n/a	n/a	No	n/a
02121800	8/31/99	301	02121890	252	4	No	n/a
				252	12	No	n/a
				252	12	No	n/a
				301	16	No	n/a
02121901	9/14/99	153	n/a	n/a	n/a	No	n/a
02121990	9/8/99	<225	n/a	n/a	n/a	No	n/a
02122090	9/7/99	<225	n/a	n/a	n/a	No	n/a
02122190	9/7/99	<225	n/a	n/a	n/a	No	n/a
02122290	9/7/99	<225	n/a	n/a	n/a	No	n/a
02122390	9/7/99	<225	n/a	n/a	n/a	No	n/a
02165100	8/31/99	352	02165190	277	4	No	n/a
				226	-4	No	n/a
				352	24	No	n/a
				252	8	No	n/a
				252	8	No	n/a
				252	8	No	n/a
				252	8	No	n/a
				352	12	No	n/a
02165191	9/8/99	<225	n/a	n/a	n/a	No	n/a
02165200	8/31/99	302	02165290	302	24	No	n/a
				302	12	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02165200	8/31/99	302	02165290	277	16	No	n/a
				302	12	No	n/a
				226	16	No	n/a
				252	20	No	n/a
				252	-4	No	n/a
				252	24	No	n/a
				226	0	No	n/a
				252	0	No	n/a
				252	16	No	n/a
				226	0	No	n/a
				226	12	No	n/a
				205	16	No	n/a
				302	32	No	n/a
02165291	9/8/99	<225	n/a	n/a	n/a	No	n/a
02165301	9/2/99	252	02165391	252	52	No	n/a
				252	24	No	n/a
				252	44	No	n/a
				226	24	No	n/a
02165390	9/8/99	<225	n/a	n/a	n/a	No	n/a
02165401	9/14/99	193	n/a	n/a	n/a	No	n/a
02165490	10/5/99	<225	n/a	n/a	n/a	No	n/a
02165501	9/14/99	154	n/a	n/a	n/a	No	n/a
02165590	9/8/99	<225	n/a	n/a	n/a	No	n/a
02165600	8/31/99	252	02165690	252	44	No	n/a
				252	56	No	n/a
				252	4	No	n/a
02165601	9/2/99	139	n/a	n/a	n/a	No	n/a
02165691	9/8/99	<225	n/a	n/a	n/a	No	n/a
02165700	8/31/99	251	02165790	251	26	No	n/a
				251	36	No	n/a
				226	32	No	n/a
				251	12	No	n/a
				251	20	No	n/a
02165701	9/2/99	150	n/a	n/a	n/a	No	n/a
02165791	9/8/99	<225	n/a	n/a	n/a	No	n/a
02165800	8/31/99	251	02165890	251	84	No	n/a
				251	44	No	n/a
				251	60	No	n/a
				251	32	No	n/a
				251	40	No	n/a
02165801	9/2/99	150	n/a	n/a	n/a	No	n/a
02165891	9/8/99	<225	n/a	n/a	n/a	No	n/a
02165900	8/31/99	251	02165990	226	28	No	n/a
				226	36	No	n/a
				252	16	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02165900	8/31/99	251	02165990	252	8	No	n/a
02166001	9/2/99	150	n/a	n/a	n/a	No	n/a
02166090	9/9/99	<225	n/a	n/a	n/a	No	n/a
02166100	9/2/99	201	n/a	n/a	n/a	No	n/a
02166190	9/9/99	<225	n/a	n/a	n/a	No	n/a
02166200	9/8/99	116	n/a	n/a	n/a	No	n/a
02166290	9/16/99	<225	n/a	n/a	n/a	No	n/a
02166390	9/14/99	<225	n/a	n/a	n/a	No	n/a
02166490	9/14/99	<225	n/a	n/a	n/a	No	n/a
02166500	9/2/99	255	02166590	255	20	No	n/a
				252	4	No	n/a
				226	16	No	n/a
02166591	9/16/99	<225	n/a	n/a	n/a	No	n/a
02166690	9/8/99	<225	n/a	n/a	n/a	No	n/a
02166700	8/31/99	301	02166790	301	20	No	n/a
02166791	9/8/99	<225	n/a	n/a	n/a	No	n/a
02166801	9/13/99	<225	n/a	n/a	n/a	No	n/a
02166890	9/8/99	<225	n/a	n/a	n/a	No	n/a
02166990	9/8/99	<225	n/a	n/a	n/a	No	n/a
02166991	9/8/99	<225	n/a	n/a	n/a	No	n/a
02166992	9/10/99	<225	n/a	n/a	n/a	No	n/a
02166993	9/2/99	<225	n/a	n/a	n/a	No	n/a
02167090	9/8/99	<225	n/a	n/a	n/a	No	n/a
02167091	9/8/99	<225	n/a	n/a	n/a	No	n/a
02167092	9/2/99	<225	n/a	n/a	n/a	No	n/a
02167093	9/10/99	<225	n/a	n/a	n/a	No	n/a
02167190	9/2/99	396	02167191	260	64	Yes	n/a
				377	64	Yes	n/a
				377	12	Yes	n/a
				396	44	Yes	n/a
				296	28	Yes	n/a
02167192	9/8/99	410	02167193	340	116	No	n/a
				248	28	No	n/a
				264	32	No	n/a
				264	48	No	n/a
				256	40	No	n/a
				264	76	No	n/a
				284	8	No	n/a
				396	28	No	n/a
				248	76	No	n/a
				254	4	No	n/a
				312	48	No	n/a
				396	40	No	n/a
				408	36	No	n/a
				382	16	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02167192	9/8/99	410	02167193	410	48	No	n/a
02167194	9/10/99	<225	n/a	n/a	n/a	No	n/a
02167195	9/8/99	<225	n/a	n/a	n/a	No	n/a
02167290	9/8/99	<225	n/a	n/a	n/a	No	n/a
02167291	9/8/99	<225	n/a	n/a	n/a	No	n/a
02167292	9/8/99	<225	n/a	n/a	n/a	No	n/a
02167293	9/2/99	<225	n/a	n/a	n/a	No	n/a
02185190	8/31/99	<225	n/a	n/a	n/a	No	n/a
02185290	9/1/99	<225	n/a	n/a	n/a	No	n/a
02185390	9/2/99	<225	n/a	n/a	n/a	No	n/a
02185391	9/16/99	<225	n/a	n/a	n/a	No	n/a
02185490	9/1/99	<225	n/a	n/a	n/a	No	n/a
02185491	9/1/99	<225	n/a	n/a	n/a	No	n/a
02185501	9/15/99	116	n/a	n/a	n/a	No	n/a
02185590	9/9/99	<225	n/a	n/a	n/a	No	n/a
02185690	9/2/99	<225	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7.4.6 Survey Unit 77922 Scan and Investigation Data Summary

Table 7 10 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77922

Table 7.10
Survey Unit 77922 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02200102	10/18/99	218	n/a	n/a	n/a	No	n/a
02200192	10/19/99	<225	n/a	n/a	n/a	No	n/a
02200200	8/23/99	406	02200290	352	28	No	n/a
				308	8	No	n/a
				233	32	No	n/a
				406	56	No	n/a
				233	8	No	n/a
				297	244	Yes	12
				264	4	No	n/a
02200200	8/23/99	406	02200290	233	56	No	n/a
				345	20	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02200291	9/10/99	<225	n/a	n/a	n/a	No	n/a
02200300	8/24/99	484	02200390	484	394	Yes	4
				352	20	No	n/a
				257	80	No	n/a
				264	28	No	n/a
				264	28	No	n/a
02200391	9/10/99	<225	n/a	n/a	n/a	No	n/a
02200402	10/18/99	218	n/a	n/a	n/a	No	n/a
02200492	10/19/99	<225	n/a	n/a	n/a	No	n/a
02200500	8/23/99	615	02200590	226	0	No	n/a
				251	208	No	n/a
				251	36	No	n/a
				615	500	Yes	44
				392	508	Yes	88
02200591	9/10/99	<225	n/a	n/a	n/a	No	n/a
02200600	8/23/99	441	02200690	230	16	No	n/a
				251	12	No	n/a
				301	28	No	n/a
				270	80	No	n/a
				255	0	No	n/a
				255	0	No	n/a
				441	32	No	n/a
				271	28	No	n/a
				226	12	No	n/a
				301	12	No	n/a
				296	36	No	n/a
02200691	9/10/99	<225	n/a	n/a	n/a	No	n/a
02200702	10/18/99	236	02200792	236	28	No	n/a
02200793	10/19/99	<225	n/a	n/a	n/a	No	n/a
02200800	8/23/99	301	02200890	276	16	No	n/a
				301	12	No	n/a
				251	44	No	n/a
				301	0	No	n/a
				255	8	No	n/a
				240	8	No	n/a
				301	392	Yes	48
				301	40	No	n/a
02200891	9/11/99	<225	n/a	n/a	n/a	No	n/a
02200900	8/23/99	352	02200990	352	4	No	n/a
				236	36	No	n/a
				251	-8	No	n/a
				301	-4	No	n/a
				348	16	No	n/a
02200900	8/23/99	352	02200990	251	28	No	n/a
02200991	9/11/99	<225	n/a	n/a	n/a	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max. Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02201090	9/14/99	<225	n/a	n/a	n/a	No	n/a
02201091	10/19/99	<225	n/a	n/a	n/a	No	n/a
02220100	8/18/99	201	n/a	n/a	n/a	No	n/a
02220190	9/13/99	<225	n/a	n/a	n/a	No	n/a
02220200	8/18/99	199	n/a	n/a	n/a	No	n/a
02220290	9/13/99	<225	n/a	n/a	n/a	No	n/a
02220300	8/18/99	226	02220390	226	36	No	n/a
02220391	9/11/99	<225	n/a	n/a	n/a	No	n/a
02220400	8/18/99	293	02220490	293	32	No	n/a
				252	4	No	n/a
02220491	9/10/99	<225	n/a	n/a	n/a	No	n/a
02220500	8/18/99	301	02220590	301	-8	No	n/a
02220591	9/10/99	<225	n/a	n/a	n/a	No	n/a
02220600	8/18/99	176	n/a	n/a	n/a	No	n/a
02220690	10/29/99	<225	n/a	n/a	n/a	No	n/a
02220700	8/18/99	201	n/a	n/a	n/a	No	n/a
02220790	10/28/99	<225	n/a	n/a	n/a	No	n/a
02220800	8/18/99	201	n/a	n/a	n/a	No	n/a
02220890	10/28/99	<225	n/a	n/a	n/a	No	n/a
02220900	8/18/99	186	n/a	n/a	n/a	No	n/a
02220990	10/28/99	<225	n/a	n/a	n/a	No	n/a
02221000	8/18/99	50	n/a	n/a	n/a	No	n/a
02221090	10/28/99	<225	n/a	n/a	n/a	No	n/a
02221100	8/19/99	196	n/a	n/a	n/a	No	n/a
02221190	10/28/99	<225	n/a	n/a	n/a	No	n/a
02265100	8/18/99	251	02265190	251	32	No	n/a
02265101	8/18/99	201	n/a	n/a	n/a	No	n/a
02265191	9/10/99	<225	n/a	n/a	n/a	No	n/a
02265200	8/19/99	150	n/a	n/a	n/a	No	n/a
02265290	9/13/99	<225	n/a	n/a	n/a	No	n/a
02265300	8/18/99	201	n/a	n/a	n/a	No	n/a
02265301	8/19/99	251	02265390	251	12	No	n/a
02265391	10/5/99	<225	n/a	n/a	n/a	No	n/a
02265400	8/18/99	226	02265490	226	12	No	n/a
02265401	8/19/99	251	02265491	251	28	No	n/a
02265492	9/10/99	<225	n/a	n/a	n/a	No	n/a
02265500	8/18/99	201	n/a	n/a	n/a	No	n/a
02265590	10/5/99	<225	n/a	n/a	n/a	No	n/a
02265600	8/18/99	251	02265690	251	48	No	n/a
				244	40	No	n/a
02265691	9/10/99	<225	n/a	n/a	n/a	No	n/a
02265700	8/18/99	201	n/a	n/a	n/a	No	n/a
02265790	10/29/99	<225	n/a	n/a	n/a	No	n/a
02265800	8/18/99	541	02265890	541	40	No	n/a
02265891	9/10/99	<225	n/a	n/a	n/a	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02265900	8/18/99	150	n/a	n/a	n/a	No	n/a
02265901	8/19/99	251	02265990	251	8	No	n/a
02265991	10/6/99	<225	n/a	n/a	n/a	No	n/a
02266000	8/19/99	201	n/a	n/a	n/a	No	n/a
02266090	10/5/99	<225	n/a	n/a	n/a	No	n/a
02285190	8/17/99	<225	n/a	n/a	n/a	No	n/a
02285191	8/19/99	<225	n/a	n/a	n/a	No	n/a
02285192	8/21/99	<225	n/a	n/a	n/a	No	n/a
02285193	8/21/99	<225	n/a	n/a	n/a	No	n/a
02285194	8/23/99	<225	n/a	n/a	n/a	No	n/a
02285195	8/23/99	<225	n/a	n/a	n/a	No	n/a
02285196	9/1/99	<225	n/a	n/a	n/a	No	n/a
02285290	8/24/99	<225	n/a	n/a	n/a	No	n/a
02285291	8/24/99	<225	n/a	n/a	n/a	No	n/a
02285292	8/24/99	<225	n/a	n/a	n/a	No	n/a
02285293	8/24/99	<225	n/a	n/a	n/a	No	n/a
02285294	8/25/99	<225	n/a	n/a	n/a	No	n/a
02285295	8/25/99	<225	n/a	n/a	n/a	No	n/a
02285296	8/25/99	<225	n/a	n/a	n/a	No	n/a
02285297	9/1/99	<225	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7.4.7 Survey Unit 77923 Scan and Investigation Data Summary

Table 7 11 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77923

Table 7.11
Survey Unit 77923 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02300101	10/19/99	2945	02300191	2945	1119	Yes	40
				527	208	No	n/a
02300201	10/19/99	225	02300291	225	48	No	n/a
02300301	10/19/99	1072	02300391	1072	666	Yes	44
				252	88	No	n/a
				290	60	No	n/a
				225	-8	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02300401	10/19/99	272	02300491	272	112	No	n/a
				254	44	No	n/a
				254	96	No	n/a
				254	56	No	n/a
02300501	10/19/99	218	n/a	n/a	n/a	No	n/a
02300590	10/19/99	<225	n/a	n/a	n/a	No	n/a
02300601	10/19/99	363	02300690	363	4	No	n/a
02320100	10/7/99	193	n/a	n/a	n/a	No	n/a
02320190	10/11/99	<225	n/a	n/a	n/a	No	n/a
02320200	10/7/99	246	02320290	246	4	No	n/a
02320291	10/13/99	<225	n/a	n/a	n/a	No	n/a
02320300	10/7/99	255	02320390	255	24	No	n/a
02320391	10/12/99	<225	n/a	n/a	n/a	No	n/a
02365100	10/7/99	<225	n/a	n/a	n/a	No	n/a
02365190	10/29/99	<225	n/a	n/a	n/a	No	n/a
02365200	10/7/99	193	n/a	n/a	n/a	No	n/a
02365300	10/7/99	266	02365390	266	16	No	n/a
02365391	10/12/99	<225	n/a	n/a	n/a	No	n/a
02385100	10/11/99	<225	n/a	n/a	n/a	No	n/a
02385190	10/7/99	<225	n/a	n/a	n/a	No	n/a
02385200	10/11/99	<225	n/a	n/a	n/a	No	n/a
02385290	10/7/99	<225	n/a	n/a	n/a	No	n/a
02385300	10/11/99	<225	n/a	n/a	n/a	No	n/a
02385390	10/8/99	<225	n/a	n/a	n/a	No	n/a
02385400	10/11/99	<225	n/a	n/a	n/a	No	n/a
02385490	10/8/99	<225	n/a	n/a	n/a	No	n/a
02385491	10/13/99	<225	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7.4.8 Survey Unit 77924 Scan and Investigation Data Summary

Table 7 12 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77924

Table 7.12
Survey Unit 77924 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02400101	10/26/99	178	n/a	n/a	n/a	No	n/a
02400191	10/27/99	<225	n/a	n/a	n/a	No	n/a
02400201	10/19/99	225	02400291	225	4	No	n/a
02400301	10/19/99	225	02400390	225	28	No	n/a
02400401	10/19/99	236	02400491	236	272	Yes	0
02400501	10/26/99	509	02400592	509	40	No	n/a
02400593	10/27/99	<225	n/a	n/a	n/a	No	n/a
02400601	10/26/99	331	02400690	331	40	No	n/a
				284	84	No	n/a
02400790	10/21/99	<225	n/a	n/a	n/a	No	n/a
02400890	10/21/99	<225	n/a	n/a	n/a	No	n/a
02420100	10/7/99	667	02420190	667	4	No	n/a
				255	28	No	n/a
				228	8	No	n/a
02420101	10/26/99	720	02420192	720	496	Yes	24
				313	348	Yes	16
02420191	10/12/99	<225	n/a	n/a	n/a	No	n/a
02420193	10/27/99	<225	n/a	n/a	n/a	No	n/a
02420300	10/7/99	232	02420390	232	40	No	n/a
02420391	10/12/99	<225	n/a	n/a	n/a	No	n/a
02420490	10/21/99	<225	n/a	n/a	n/a	No	n/a
02465100	10/7/99	189	n/a	n/a	n/a	No	n/a
02465101	10/26/99	214	n/a	n/a	n/a	No	n/a
02465190	10/27/99	<225	n/a	n/a	n/a	No	n/a
02465200	10/7/99	120	n/a	n/a	n/a	No	n/a
02465290	10/29/99	<225	n/a	n/a	n/a	No	n/a
02465300	10/7/99	189	n/a	n/a	n/a	No	n/a
02465390	10/29/99	<225	n/a	n/a	n/a	No	n/a
02485100	10/11/99	170	n/a	n/a	n/a	No	n/a
02485101	10/26/99	218	n/a	n/a	n/a	No	n/a
02485190	10/9/99	<225	n/a	n/a	n/a	No	n/a
02485191	10/14/99	<225	n/a	n/a	n/a	No	n/a
02485192	10/27/99	<225	n/a	n/a	n/a	No	n/a
02485200	10/11/99	178	n/a	n/a	n/a	No	n/a
02485201	10/26/99	177	n/a	n/a	n/a	No	n/a
02485290	10/13/99	<225	n/a	n/a	n/a	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02485291	10/9/99	<225	n/a	n/a	n/a	No	n/a
02485292	10/27/99	<225	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7 4.9 Survey Unit 77925 Scan and Investigation Data Summary

Table 7 13 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77925

Table 7.13
Survey Unit 77925 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02500102	10/21/99	291	02500190	291	4	No	n/a
02500191	10/29/99	<225	n/a	n/a	n/a	No	n/a
02500201	10/20/99	400	02500290	400	622	Yes	20
				327	244	Yes	124
				290	56	No	n/a
				363	272	Yes	32
02500291	10/27/99	<225	n/a	n/a	n/a	No	n/a
02500301	10/21/99	256	02500390	256	68	No	n/a
				247	68	No	n/a
02500391	10/29/99	<225	n/a	n/a	n/a	No	n/a
02500401	10/21/99	1381	02500490	1381	774	Yes	68
02500491	10/28/99	<225	n/a	n/a	n/a	No	n/a
02500501	10/21/99	8108	02500590	784	790	Yes	168
				8108	8352	Yes	128
				436	372	Yes	136
				291	144	No	n/a
02500602	10/21/99	261	02500690	261	52	No	n/a
				250	108	No	n/a
				225	60	No	n/a
				225	44	No	n/a
02500701	10/21/99	455	02500790	455	504	Yes	68
				255	248	Yes	12
				255	4	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02500701	10/21/99	455	02500790	364	24	No	n/a
				255	108	No	n/a
				364	244	Yes	56
02500801	10/21/99	364	02500890	364	276	Yes	60
				291	88	No	n/a
				255	44	No	n/a
02500901	10/21/99	345	02500990	345	336	Yes	47
				290	52	No	n/a
				290	16	No	n/a
				236	40	No	n/a
02501001	10/21/99	255	02501090	255	20	No	n/a
02501102	10/20/99	272	02501191	272	48	No	n/a
				243	20	No	n/a
02501201	10/20/99	436	02501290	436	444	Yes	60
				361	56	No	n/a
				252	44	No	n/a
				236	28	No	n/a
				250	48	No	n/a
				229	8	No	n/a
				225	20	No	n/a
				400	252	Yes	24
				330	408	Yes	24
				225	32	No	n/a
				254	228	Yes	40
				233	28	No	n/a
				231	48	No	n/a
				261	32	No	n/a
				225	88	No	n/a
02501291	10/22/99	<225	n/a	n/a	n/a	No	n/a
02501301	10/20/99	541	02501390	541	360	Yes	48
				356	36	No	n/a
				262	64	No	n/a
				225	64	No	n/a
				363	20	No	n/a
				291	76	No	n/a
				251	68	No	n/a
				329	28	No	n/a
				237	48	No	n/a
				237	56	No	n/a
				269	24	No	n/a
02501401	10/20/99	272	02501490	272	12	No	n/a
				228	12	No	n/a
				254	32	No	n/a
				261	16	No	n/a
02501491	10/22/99	<225	n/a	n/a	n/a	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02501501	10/20/99	290	02501590	290	16	No	n/a
				250	72	No	n/a
				246	56	No	n/a
				226	28	No	n/a
				250	48	No	n/a
				240	40	No	n/a
02501690	10/21/99	800	n/a	572	n/a	Yes	<225
				512	n/a	Yes	<225
				800	n/a	Yes	<225
02520101	10/21/99	320	02520190	320	28	No	n/a
				255	16	No	n/a
				255	20	No	n/a
02520201	10/21/99	214	n/a	n/a	n/a	No	n/a
02520290	10/25/99	<225	n/a	n/a	n/a	No	n/a
02520302	10/21/99	181	n/a	n/a	n/a	No	n/a
02520391	10/29/99	<225	n/a	n/a	n/a	No	n/a
02520401	10/21/99	307	02520493	307	24	No	n/a
02520492	10/25/99	<225	n/a	n/a	n/a	No	n/a
02520501	10/21/99	284	02520591	273	40	No	n/a
				255	12	No	n/a
				284	12	No	n/a
02520601	10/21/99	215	n/a	n/a	n/a	No	n/a
02520691	10/25/99	<225	n/a	n/a	n/a	No	n/a
02520701	10/21/99	325	02520792	325	36	No	n/a
02520791	10/25/99	<225	n/a	n/a	n/a	No	n/a
02520890	10/21/99	<225	n/a	n/a	n/a	No	n/a
02565101	10/21/99	225	02565191	225	0	No	n/a
02565201	10/21/99	618	02565291	618	678	Yes	24
02565290	10/26/99	<225	n/a	n/a	n/a	No	n/a
02565301	10/21/99	257	02565391	257	180	No	n/a
02565390	10/26/99	<225	n/a	n/a	n/a	No	n/a
02565401	10/21/99	218	n/a	n/a	n/a	No	n/a
02565491	10/26/99	<225	n/a	n/a	n/a	No	n/a
02565501	10/21/99	255	02565591	255	28	No	n/a
02565601	10/21/99	187	n/a	n/a	n/a	No	n/a
02565691	10/26/99	<225	n/a	n/a	n/a	No	n/a
02565701	10/21/99	181	n/a	n/a	n/a	No	n/a
02565791	10/26/99	<225	n/a	n/a	n/a	No	n/a
02585101	10/21/99	302	02585192	302	32	No	n/a
				225	0	No	n/a
				225	76	No	n/a
				252	68	No	n/a
				251	76	No	n/a
				255	36	No	n/a
02585193	10/25/99	<225	n/a	n/a	n/a	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max. Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02585194	10/28/99	<225	n/a	n/a	n/a	No	n/a
02585201	10/21/99	189	n/a	n/a	n/a	No	n/a
02585291	10/25/99	<225	n/a	n/a	n/a	No	n/a
02585301	10/21/99	225	02585391	225	32	No	n/a
02585392	10/22/99	<225	n/a	n/a	n/a	No	n/a
02585393	10/28/99	<225	n/a	n/a	n/a	No	n/a
02585401	10/21/99	400	02585492	254	156	No	n/a
				327	856	Yes	28
				400	192	No	n/a
02585490	10/15/99	<225	n/a	n/a	n/a	No	n/a
02585493	10/26/99	<225	n/a	n/a	n/a	No	n/a
02585494	10/26/99	<225	n/a	n/a	n/a	No	n/a
02585501	10/21/99	1249	02585594	866	1258	Yes	52
				1249	1594	Yes	84
				330	152	No	n/a
				247	28	No	n/a
				244	4	No	n/a
02585595	10/26/99	<225	n/a	n/a	n/a	No	n/a
02585596	10/22/99	<225	n/a	n/a	n/a	No	n/a
02585601	10/21/99	567	02585694	567	32	No	n/a
				291	44	No	n/a
				255	76	No	n/a
02585693	10/21/99	<225	n/a	n/a	n/a	No	n/a
02585695	10/28/99	<225	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7.4.10 Survey Unit 77926 Scan and Investigation Data Summary

Table 7 14 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77926

Table 7.14
Survey Unit 77926 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02600104	10/18/99	1082	02600192	363	180	No	n/a
				233	28	No	n/a
				436	252	Yes	12
				1082	1142	Yes	44
				225	8	No	n/a
02600191	10/20/99	<225	n/a	n/a	n/a	No	n/a
02600203	10/18/99	225	02600294	225	20	No	n/a
				225	28	No	n/a
02600293	10/20/99	<225	n/a	n/a	n/a	No	n/a
02600304	9/22/99	232	02600392	232	60	No	n/a
02600391	9/9/99	<225	n/a	n/a	n/a	No	n/a
02600401	9/1/99	271	02600490	271	16	No	n/a
				271	16	No	n/a
				252	20	No	n/a
				232	44	No	n/a
				232	52	No	n/a
				232	16	No	n/a
02600501	9/1/99	658	02600590	658	357	Yes	24
				348	172	No	n/a
02600591	9/9/99	<225	n/a	n/a	n/a	No	n/a
02600601	9/1/99	348	02600690	348	268	Yes	68
				310	236	Yes	60
				310	256	Yes	36
				232	248	Yes	24
02600691	9/9/99	348	02600692	348	20	No	n/a
02600700	8/30/99	813	02600790	813	80	No	n/a
				252	40	No	n/a
02600792	9/24/99	<225	n/a	n/a	n/a	No	n/a
02600800	8/30/99	540	02600890	540	140	No	n/a
				271	56	No	n/a
				232	60	No	n/a
02600900	9/15/99	310	02600990	228	12	No	n/a
				310	8	No	n/a
				271	28	No	n/a
				310	4	No	n/a
				270	4	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02600900	9/15/99	310	02600990	270	12	No	n/a
02600991	9/22/99	n/a	n/a	n/a	n/a	No	n/a
02601000	9/15/99	270	02601090	232	48	No	n/a
				230	12	No	n/a
				232	32	No	n/a
				230	64	No	n/a
				230	-4	No	n/a
				232	8	No	n/a
				270	40	No	n/a
				232	32	No	n/a
02601102	10/18/99	240	02601193	240	24	No	n/a
02601192	10/28/99	<225	n/a	n/a	n/a	No	n/a
02601201	10/18/99	236	02601292	236	276	Yes	8
02601291	10/27/99	<225	n/a	n/a	n/a	No	n/a
02601300	9/15/99	232	02601390	232	8	No	n/a
				232	56	No	n/a
				226	40	No	n/a
02620100	8/30/99	245	02620190	245	20	No	n/a
				226	20	No	n/a
02620201	9/1/99	154	n/a	n/a	n/a	No	n/a
02620301	9/22/99	193	n/a	n/a	n/a	No	n/a
02620400	8/30/99	252	02620490	252	36	No	n/a
				252	20	No	n/a
02620500	8/30/99	154	n/a	n/a	n/a	No	n/a
02620600	8/30/99	193	n/a	n/a	n/a	No	n/a
02620700	8/30/99	135	n/a	n/a	n/a	No	n/a
02620790	9/13/99	770	02620791	770	n/a	Yes	60
				284	n/a	Yes	28
				634	n/a	Yes	4
02620800	8/30/99	193	n/a	n/a	n/a	No	n/a
02620901	9/16/99	855	02620991	226	64	No	n/a
				301	16	No	n/a
				301	8	No	n/a
				579	396	Yes	0
				352	204	No	n/a
				302	292	Yes	0
				226	36	No	n/a
				226	148	No	n/a
				302	28	No	n/a
				855	384	Yes	12
				302	148	No	n/a
				402	244	Yes	24
				252	16	No	n/a
				302	28	No	n/a
				252	36	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02620901	9/16/99	855	02620991	252	32	No	n/a
02621000	8/30/99	174	n/a	n/a	n/a	No	n/a
02621100	8/30/99	155	n/a	n/a	n/a	No	n/a
02621200	8/30/99	154	n/a	n/a	n/a	No	n/a
02621290	9/13/99	352	02621291	352	n/a	Yes	24
02621300	8/30/99	76	n/a	n/a	n/a	No	n/a
02621390	10/5/99	<225	n/a	n/a	n/a	No	n/a
02621400	8/30/99	116	n/a	n/a	n/a	No	n/a
02621490	9/9/99	<225	n/a	n/a	n/a	No	n/a
02621500	9/15/99	251	02621590	251	4	No	n/a
02621591	10/5/99	<225	n/a	n/a	n/a	No	n/a
02621600	9/15/99	251	02621690	251	4	No	n/a
				251	8	No	n/a
02621700	9/15/99	251	02621790	251	40	No	n/a
02621800	9/15/99	58	n/a	n/a	n/a	No	n/a
02621900	9/15/99	154	n/a	n/a	n/a	No	n/a
02665100	8/30/99	150	n/a	n/a	n/a	No	n/a
02665190	9/23/99	<225	n/a	n/a	n/a	No	n/a
02665201	9/22/99	154	n/a	n/a	n/a	No	n/a
02665300	9/2/99	201	n/a	n/a	n/a	No	n/a
02665301	9/2/99	277	02665390	277	28	No	n/a
				252	32	No	n/a
				252	32	No	n/a
				252	-12	No	n/a
				226	32	No	n/a
02665391	9/23/99	<225	n/a	n/a	n/a	No	n/a
02665400	9/2/99	150	n/a	n/a	n/a	No	n/a
02665401	9/2/99	251	02665490	251	20	No	n/a
02665491	10/6/99	<225	n/a	n/a	n/a	No	n/a
02665492	9/23/99	<225	n/a	n/a	n/a	No	n/a
02665500	8/30/99	116	n/a	n/a	n/a	No	n/a
02665600	8/30/99	116	n/a	n/a	n/a	No	n/a
02665700	8/30/99	155	n/a	n/a	n/a	No	n/a
02665790	9/13/90	<225	n/a	n/a	n/a	No	n/a
02665800	8/30/99	155	n/a	n/a	n/a	No	n/a
02665900	8/30/99	155	n/a	n/a	n/a	No	n/a
02666000	8/30/99	155	n/a	n/a	n/a	No	n/a
02666100	8/30/99	154	n/a	n/a	n/a	No	n/a
02666200	8/30/99	116	n/a	n/a	n/a	No	n/a
02666290	9/13/99	<225	n/a	n/a	n/a	No	n/a
02666300	8/30/99	116	n/a	n/a	n/a	No	n/a
02666301	9/2/99	201	n/a	n/a	n/a	No	n/a
02666390	9/14/99	<225	n/a	n/a	n/a	No	n/a
02666391	10/29/99	<225	n/a	n/a	n/a	No	n/a
02666400	8/30/99	155	n/a	n/a	n/a	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02666401	9/2/99	155	n/a	n/a	n/a	No	n/a
02666490	9/14/99	<225	n/a	n/a	n/a	No	n/a
02666500	9/22/99	154	n/a	n/a	n/a	No	n/a
02666590	9/24/99	<225	n/a	n/a	n/a	No	n/a
02666601	9/22/99	232	02666691	232	12	No	n/a
02666690	9/24/99	<225	n/a	n/a	n/a	No	n/a
02666701	10/4/99	186	n/a	n/a	n/a	No	n/a
02666790	10/4/99	<225	n/a	n/a	n/a	No	n/a
02666800	9/15/99	154	n/a	n/a	n/a	No	n/a
02666890	9/24/99	<225	n/a	n/a	n/a	No	n/a
02666891	10/29/99	<225	n/a	n/a	n/a	No	n/a
02666900	9/15/99	154	n/a	n/a	n/a	No	n/a
02666990	9/24/99	<225	n/a	n/a	n/a	No	n/a
02666991	10/29/99	<225	n/a	n/a	n/a	No	n/a
02685190	8/30/99	<225	n/a	n/a	n/a	No	n/a
02685191	9/1/99	<225	n/a	n/a	n/a	No	n/a
02685192	9/21/99	<225	n/a	n/a	n/a	No	n/a
02685290	8/30/99	<225	n/a	n/a	n/a	No	n/a
02685291	8/31/99	<225	n/a	n/a	n/a	No	n/a
02685390	8/31/99	<225	n/a	n/a	n/a	No	n/a
02685490	8/30/99	<225	n/a	n/a	n/a	No	n/a
02685590	8/31/99	<225	n/a	n/a	n/a	No	n/a
02685690	8/31/99	<225	n/a	n/a	n/a	No	n/a
02685691	8/31/99	<225	n/a	n/a	n/a	No	n/a
02685692	9/1/99	<225	n/a	n/a	n/a	No	n/a
02685790	9/17/99	<225	n/a	n/a	n/a	No	n/a
02685791	9/18/99	<225	n/a	n/a	n/a	No	n/a
02685890	9/16/99	<225	n/a	n/a	n/a	No	n/a
02685891	9/16/99	<225	n/a	n/a	n/a	No	n/a
02685892	9/16/99	<225	n/a	n/a	n/a	No	n/a
02685893	9/17/99	<225	n/a	n/a	n/a	No	n/a
02685990	9/15/99	<225	n/a	n/a	n/a	No	n/a
02685991	9/20/99	<225	n/a	n/a	n/a	No	n/a
02686090	9/15/99	<225	n/a	n/a	n/a	No	n/a
02686091	9/20/99	<225	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7.4.11 Survey Unit 77927 Scan and Investigation Data Summary

Table 7 15 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77927

Table 7.15
Survey Unit 77927 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02700100	9/15/99	302	02700191	302	0	No	n/a
				252	20	No	n/a
				252	4	No	n/a
				252	16	No	n/a
				252	20	No	n/a
				246	-8	No	n/a
02700190	9/23/99	<225	n/a	n/a	n/a	No	n/a
02700201	10/19/99	563	02700290	563	24	No	n/a
				290	4	No	n/a
02700291	10/28/99	<225	n/a	n/a	n/a	No	n/a
02700301	10/18/99	290	02700393	290	240	Yes	4
				225	12	No	n/a
02700393	10/28/99	<225	n/a	n/a	n/a	No	n/a
02700400	10/7/99	309	02700491	232	48	No	n/a
				252	52	No	n/a
				232	44	No	n/a
				309	24	No	n/a
				231	52	No	n/a
				270	92	No	n/a
				232	52	No	n/a
				270	96	No	n/a
02700490	10/8/99	<225	n/a	n/a	n/a	No	n/a
02700500	10/7/99	309	02700590	232	44	No	n/a
				228	64	No	n/a
				270	16	No	n/a
				309	40	No	n/a
				309	12	No	n/a
				226	32	No	n/a
				309	36	No	n/a
02700591	10/8/99	<225	n/a	n/a	n/a	No	n/a
02720100	9/17/99	201	n/a	n/a	n/a	No	n/a
02720190	9/23/99	<225	n/a	n/a	n/a	No	n/a
02720200	9/16/99	276	02720290	276	4	No	n/a
02720300	9/16/99	251	02720390	251	20	No	n/a
02720400	9/16/99	150	n/a	n/a	n/a	No	n/a
02720500	10/7/99	174	n/a	n/a	n/a	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02720590	10/14/99	<225	n/a	n/a	n/a	No	n/a
02720600	10/7/99	136	n/a	n/a	n/a	No	n/a
02720690	10/19/99	<225	n/a	n/a	n/a	No	n/a
02720700	10/7/99	150	n/a	n/a	n/a	No	n/a
02720790	10/15/90	<225	n/a	n/a	n/a	No	n/a
02720800	10/7/99	154	n/a	n/a	n/a	No	n/a
02720890	10/14/99	<225	n/a	n/a	n/a	No	n/a
02720900	10/7/99	154	n/a	n/a	n/a	No	n/a
02720990	10/19/99	<225	n/a	n/a	n/a	No	n/a
02765100	9/16/99	247	02765191	247	8	No	n/a
02765190	9/23/99	<225	n/a	n/a	n/a	No	n/a
02765200	9/16/99	201	n/a	n/a	n/a	No	n/a
02765290	9/23/99	<225	n/a	n/a	n/a	No	n/a
02765300	9/16/99	251	02765390	251	12	No	n/a
				226	12	No	n/a
02765400	9/16/99	251	02765491	251	28	No	n/a
02765490	9/23/99	<225	n/a	n/a	n/a	No	n/a
02765492	10/29/99	<225	n/a	n/a	n/a	No	n/a
02765500	10/8/99	205	n/a	n/a	n/a	No	n/a
02765590	10/20/99	<225	n/a	n/a	n/a	No	n/a
02765600	10/8/99	193	n/a	n/a	n/a	No	n/a
02765690	10/20/99	<225	n/a	n/a	n/a	No	n/a
02765700	10/8/99	150	n/a	n/a	n/a	No	n/a
02765790	10/26/99	<225	n/a	n/a	n/a	No	n/a
02765800	10/8/99	189	n/a	n/a	n/a	No	n/a
02765890	10/26/99	<225	n/a	n/a	n/a	No	n/a
02765900	10/8/99	201	n/a	n/a	n/a	No	n/a
02765901	10/12/99	190	n/a	n/a	n/a	No	n/a
02765990	10/26/99	<225	n/a	n/a	n/a	No	n/a
02785190	10/20/99	<225	n/a	n/a	n/a	No	n/a
02785290	9/20/99	<225	n/a	n/a	n/a	No	n/a
02785390	9/20/99	<225	n/a	n/a	n/a	No	n/a
02785490	9/21/99	<225	n/a	n/a	n/a	No	n/a
02785590	10/20/99	<225	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7.4.12 Survey Unit 77928 Scan and Investigation Data Summary

Table 7 16 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77928

Table 7.16
Survey Unit 77928 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02800190	9/1/99	<225	n/a	n/a	n/a	No	n/a
02800290	9/1/99	<225	n/a	n/a	n/a	No	n/a
02800390	9/1/99	<225	n/a	n/a	n/a	No	n/a
02800490	8/31/99	288	n/a	288	n/a	Yes	100
02800590	9/9/99	<225	n/a	n/a	n/a	No	n/a
02800690	9/1/99	<225	n/a	n/a	n/a	No	n/a
02800790	9/9/99	<225	n/a	n/a	n/a	No	n/a
02820101	8/13/99	203	n/a	n/a	n/a	No	n/a
02820190	10/25/99	<225	n/a	n/a	n/a	No	n/a
02820201	8/13/99	169	n/a	n/a	n/a	No	n/a
02820290	10/25/99	<225	n/a	n/a	n/a	No	n/a
02820301	8/13/99	169	n/a	n/a	n/a	No	n/a
02820390	10/25/99	<225	n/a	n/a	n/a	No	n/a
02820401	8/16/99	169	n/a	n/a	n/a	No	n/a
02820490	10/25/99	<225	n/a	n/a	n/a	No	n/a
02820501	8/13/99	237	02820590	237	118	No	n/a
02820591	10/25/99	<225	n/a	n/a	n/a	No	n/a
02820601	8/13/99	1117	02820690	1117	400	Yes	76
				474	16	No	n/a
02820691	10/25/99	<225	n/a	n/a	n/a	No	n/a
02820701	8/13/99	169	n/a	n/a	n/a	No	n/a
02820790	10/27/99	<225	n/a	n/a	n/a	No	n/a
02820801	8/13/99	203	n/a	n/a	n/a	No	n/a
02820901	8/13/99	101	n/a	n/a	n/a	No	n/a
02820990	10/27/99	<225	n/a	n/a	n/a	No	n/a
02865101	8/16/99	507	02865190	507	16	No	n/a
02865201	8/16/99	232	02865290	232	0	No	n/a
02865301	8/16/99	169	n/a	n/a	n/a	No	n/a
02865401	8/16/99	135	n/a	n/a	n/a	No	n/a
02865501	8/16/99	169	n/a	n/a	n/a	No	n/a
02865601	8/16/99	168	n/a	n/a	n/a	No	n/a
02865701	8/16/99	440	02865790	440	28	No	n/a
02865801	8/16/99	135	n/a	n/a	n/a	No	n/a
02865901	8/16/99	135	n/a	n/a	n/a	No	n/a
02885101	8/16/99	169	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7.4.13 Survey Unit 77929 Scan and Investigation Data Summary

Table 7 17 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77929

Table 7.17
Survey Unit 77929 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02900100	8/24/99	3507	02900190	226	4	No	n/a
				226	-4	No	n/a
				226	4	No	n/a
				226	4	No	n/a
				3507	32	No	n/a
				302	-12	No	n/a
				277	8	No	n/a
				252	-4	No	n/a
				252	-12	No	n/a
				252	-20	No	n/a
				252	-8	No	n/a
				248	4	No	n/a
				248	0	No	n/a
02900191	10/9/99	<225	n/a	n/a	n/a	No	n/a
02900200	8/24/99	252	02900290	252	-24	No	n/a
				252	-28	No	n/a
				252	-12	No	n/a
				252	-20	No	n/a
				252	-20	No	n/a
				252	-4	No	n/a
				226	16	No	n/a
				225	12	No	n/a
				252	-16	No	n/a
02900291	10/9/99	<225	n/a	n/a	n/a	No	n/a
02900300	8/24/99	302	02900390	302	8	No	n/a
				252	16	No	n/a
				252	20	No	n/a
				252	-4	No	n/a
				249	0	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02900400	8/24/99	352	02900490	352	4	No	n/a
				302	-4	No	n/a
				302	16	No	n/a
				302	4	No	n/a
				252	20	No	n/a
				252	8	No	n/a
				252	8	No	n/a
				252	-8	No	n/a
				252	0	No	n/a
				226	4	No	n/a
				226	-4	No	n/a
				226	-4	No	n/a
				226	0	No	n/a
02900491	10/9/99	<225	n/a	n/a	n/a	No	n/a
02900500	8/24/99	453	02900590	252	-12	No	n/a
				252	-4	No	n/a
				252	4	No	n/a
				252	4	No	n/a
				252	16	No	n/a
				248	68	No	n/a
				226	-4	No	n/a
				226	4	No	n/a
				226	4	No	n/a
				453	16	No	n/a
				453	8	No	n/a
				377	44	No	n/a
				352	16	No	n/a
				352	12	No	n/a
				302	0	No	n/a
				302	20	No	n/a
				277	-8	No	n/a
				252	-4	No	n/a
02900591	10/9/99	<225	n/a	n/a	n/a	No	n/a
02900600	8/24/99	352	02900691	352	12	No	n/a
				252	4	No	n/a
				252	-4	No	n/a
				252	4	No	n/a
				252	0	No	n/a
				226	4	No	n/a
				226	20	No	n/a
02900690	10/6/99	<225	n/a	n/a	n/a	No	n/a
02900692	10/9/99	<225	n/a	n/a	n/a	No	n/a
02900700	10/7/99	348	02900790	228	28	No	n/a
				296	40	No	n/a
				348	36	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02900700	10/7/99	348	02900790	259	20	No	n/a
02900791	10/8/99	<225	n/a	n/a	n/a	No	n/a
02900800	10/7/99	360	02900890	230	8	No	n/a
				360	12	No	n/a
02900891	10/12/99	<225	n/a	n/a	n/a	No	n/a
02920101	8/31/99	116	n/a	n/a	n/a	No	n/a
02920201	10/8/99	178	n/a	n/a	n/a	No	n/a
02920290	10/15/99	<225	n/a	n/a	n/a	No	n/a
02920301	8/31/99	116	n/a	n/a	n/a	No	n/a
02920390	10/9/99	<225	n/a	n/a	n/a	No	n/a
02920401	8/31/99	154	n/a	n/a	n/a	No	n/a
02920490	9/13/99	<225	n/a	n/a	n/a	No	n/a
02920501	8/31/99	116	n/a	n/a	n/a	No	n/a
02920590	10/9/99	<225	n/a	n/a	n/a	No	n/a
02920601	8/31/99	154	n/a	n/a	n/a	No	n/a
02920690	10/9/99	<225	n/a	n/a	n/a	No	n/a
02920701	8/31/99	154	n/a	n/a	n/a	No	n/a
02920790	10/9/99	<225	n/a	n/a	n/a	No	n/a
02920800	10/7/99	154	n/a	n/a	n/a	No	n/a
02920890	10/21/99	<225	n/a	n/a	n/a	No	n/a
02920900	10/7/99	139	n/a	n/a	n/a	No	n/a
02920990	10/21/99	<225	n/a	n/a	n/a	No	n/a
02921000	10/7/99	144	n/a	n/a	n/a	No	n/a
02921090	10/21/99	<225	n/a	n/a	n/a	No	n/a
02921100	10/7/99	125	n/a	n/a	n/a	No	n/a
02921190	10/21/99	<225	n/a	n/a	n/a	No	n/a
02921200	10/7/99	150	n/a	n/a	n/a	No	n/a
02921290	10/21/99	<225	n/a	n/a	n/a	No	n/a
02921300	10/7/99	154	n/a	n/a	n/a	No	n/a
02921390	10/22/99	<225	n/a	n/a	n/a	No	n/a
02921400	10/7/99	77	n/a	n/a	n/a	No	n/a
02921490	10/21/99	<225	n/a	n/a	n/a	No	n/a
02921500	10/7/99	154	n/a	n/a	n/a	No	n/a
02921590	10/21/99	<225	n/a	n/a	n/a	No	n/a
02921600	10/7/99	127	n/a	n/a	n/a	No	n/a
02921690	10/21/99	<225	n/a	n/a	n/a	No	n/a
02965101	8/31/99	77	n/a	n/a	n/a	No	n/a
02965301	8/31/99	96	n/a	n/a	n/a	No	n/a
02965401	8/31/99	77	n/a	n/a	n/a	No	n/a
02965501	8/31/99	185	n/a	n/a	n/a	No	n/a
02965601	8/31/99	116	n/a	n/a	n/a	No	n/a
02965701	8/31/99	116	n/a	n/a	n/a	No	n/a
02965800	10/7/99	178	n/a	n/a	n/a	No	n/a
02965900	10/7/99	150	n/a	n/a	n/a	No	n/a
02966000	10/7/99	154	n/a	n/a	n/a	No	n/a

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
02966100	10/7/99	158	n/a	n/a	n/a	No	n/a
02966200	10/7/99	154	n/a	n/a	n/a	No	n/a
02966300	10/7/99	76	n/a	n/a	n/a	No	n/a
02966400	10/7/99	240	02966490	240	36	No	n/a
02966500	10/7/99	183	n/a	n/a	n/a	No	n/a
02966600	10/7/99	139	n/a	n/a	n/a	No	n/a
02985101	8/31/99	116	n/a	n/a	n/a	No	n/a
02985190	8/26/99	<225	n/a	n/a	n/a	No	n/a
02985200	8/31/99	116	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

7.4.14 Survey Unit 77949 Scan and Investigation Data Summary

Table 7 18 summarizes the SCM/SIMS and NE Electra scans and follow-up investigations conducted in survey unit 77949

Table 7.18
Survey Unit 77949 Scan Data Summary

Final Scan Survey Number[1]	Scan Survey Date	Max Result (dpm/100cm^2) [2]	Investigation Survey Number	Scan value >75% of EMC (dpm/100cm^2)	Electra Investigation Result (dpm/100cm^2) [3]	Decon required (y/n)	Final Investigation Value (dpm/100cm^2) [3]
04900100	10/22/99	192	n/a	n/a	n/a	No	n/a
04900190	10/26/99	<225	n/a	n/a	n/a	No	n/a
04900200	10/22/99	189	n/a	n/a	n/a	No	n/a
04900290	10/26/99	<225	n/a	n/a	n/a	No	n/a
04900300	10/22/99	287	04900391	287	32	No	n/a
04900390	10/26/99	<225	n/a	n/a	n/a	No	n/a
04900400	10/22/99	183	n/a	n/a	n/a	No	n/a
04900490	10/26/99	<225	n/a	n/a	n/a	No	n/a
04900500	10/22/99	290	04900591	290	40	No	n/a
04900590	10/26/99	<225	n/a	n/a	n/a	No	n/a
04900600	10/22/99	307	04900691	240	28	No	n/a
				234	0	No	n/a
				307	12	No	n/a
04900690	10/26/99	<225	n/a	n/a	n/a	No	n/a

(1) The first six characters represent the survey subunit number The last two numbers represent the detector type
(2) NE Electra scan results are reported as < 225 dpm/100 cm^2 when no areas are flagged
(3) One-square meter averages are verified as less than 75 dpm/100 cm^2 when individual measurements in excess of 100 dpm/100 cm^2 are present

Detailed scan survey instructions and results are on file in the Building 779 project files

8.0 Conclusion

All survey/sample data collected from the B779 "A" Annex and loading dock interior and exterior surfaces were collected in accordance with the Closeout Radiological Survey Plan for the 779 Cluster and approved survey instructions All data were verified and validated as described in Attachment Q and are, therefore, satisfactory for comparison with release criteria

Finally, all survey/sample results presented in this report are less than DCGLs as defined by the Closeout Radiological Survey Plan for the 779 Cluster

ATTACHMENT A
Survey Unit 77907 Data Summary

SURVEY UNIT 77907 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W}$ =

>75% and <100% of $DCGL_{W}$ =

Greater Than or Equal to $DCGL_{W}$ =

55

Survey Unit 77907 Data Summary

Total Surface Activity Measurements

	17	19	
	Number Required	Number Obtained	
MIN	12 2		dpm/100 cm^2
MAX	66 4		dpm/100 cm^2
MEAN	27 5		dpm/100 cm^2
STD DEV	15 9		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	17	19	
	Number Required	Number Obtained	
MIN	-0 9		dpm/100 cm^2
MAX	2 4		dpm/100 cm^2
MEAN	0 8		dpm/100 cm^2
STD DEV	1 3		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

Media Sample Activity

Media Samples	17	17
	Number Required	Number Obtained

Total Uranium Results

MIN	1 1	dpm/100 cm^2
MAX	259 5	dpm/100 cm^2
MEAN	71 1	dpm/100 cm^2
STD DEV	66 9	dpm/100 cm^2
DCGL$_W$	5000	dpm/100 cm^2

Total Transuranic Results

MIN	-40 9	dpm/100 cm^2
MAX	37 2	dpm/100 cm^2
MEAN	4 3	dpm/100 cm^2
STD DEV	16 1	dpm/100 cm^2
DCGL$_W$	100	dpm/100 cm^2

50

Survey Unit 77907 Building 779 Total Surface Contamination Results

Total Surface Activity Survey

Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
Instrument #	1194	2358	1370	2 0
Cal Due Date	10/22/99	1/19/00	10/8/99	[redacted]
Efficiency (c/d)	0 221	0 220	0 222	[redacted]

Total Surface Activity Measurements

Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1	1194	07/31/99	16 7	32 4	66 4
2	2358	07/31/99	11 3	32 7	42 3
3	1194	07/31/99	8 0	32 4	27 1
4	2358	07/31/99	8 7	32 7	30 5
5	1194	07/31/99	8 0	32 4	27 1
6	2358	07/31/99	8 0	32 7	27 3
7	1194	07/31/99	7 3	32 4	23 9
8	2358	07/31/99	4 7	32 7	12 3
9	1194	07/31/99	5 3	32 4	14 9
10	2358	07/31/99	5 3	32 7	15 0
11	1194	07/31/99	10 7	32 4	39 3
12	2358	07/31/99	5 3	32 7	15 0
13	1194	07/31/99	5 3	32 4	14 9
14	1194	07/31/99	7 3	32 4	23 9
15	1194	07/31/99	7 3	32 4	23 9
16	1370	07/31/99	4 7	32 4	12 2
17	1194	07/31/99	4 7	32 4	12 2
18	1194	07/31/99	8 7	32 4	30 3
19	1370	07/31/99	16 0	32 4	63 1
[redacted]				MIN	12 2
				MAX	66 4
				MEAN	27 5
				SD	15 9
				Transuranic DCGL$_W$	100

Quality Control Survey

NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
1375	N/A	N/A	4 3
12/8/99	N/A	N/A	[redacted]
0 219	N/A	N/A	

Quality Control Measurements

Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1375	8/4/99	6 7	44 2	10 9
1375	8/4/99	10 7	44 2	29 2
[redacted]				

Survey Unit 77907 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	1069	7/31/99	0 5	0 9	7 5
2	1069	7/31/99	0 5	0 9	7 5
3	1069	7/31/99	1 0	2 4	7 5
4	1069	7/31/99	1 0	2 4	7 5
5	1069	7/31/99	0 5	0 9	7 5
6	1069	7/31/99	0 5	0 9	7 5
7	1069	7/31/99	0 0	-0 6	7 5
8	1069	7/31/99	1 0	2 4	7 5
9	1069	7/31/99	0 0	-0 6	7 5
10	1069	7/31/99	0 0	-0 6	7 5
11	1069	7/31/99	1 0	2 4	7 5
12	1069	7/31/99	0 0	-0 6	7 5
13	1069	7/31/99	0 0	-0 6	7 5
14	1053	8/2/99	0 5	0 6	8 3
15	1053	8/2/99	1 0	2 1	8 3
16	1069	7/31/99	0 0	-0 6	7 5
17	1053	8/2/99	1 0	2 1	8 3
18	1053	8/2/99	0 0	-0 9	8 3
19	1069	7/31/99	0 5	0 9	7 5
			MIN	-0 9	
			MAX	2 4	
			MEAN	0 8	
			SD	1 3	
			Transuranic $DCGL_W$	**20**	

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Survey Unit 77907 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Roof	1	001 002	U-233/234	0 193	0 063	223 75	40	37 1	12 1		
			U-235	0 000	0 044			0 0	8 5		
			U-238	0 166	0 063			32 0	12 1	69 1	
			Pu-239/240	0 017	0 046			3 3	8 9		
			Am-241	0 018	0 049			3 5	9 4		6 7
Roof	2	002 002	U-233/234	0 247	0 037	161 46	40	34 3	5 1		
			U-235	0 051	0 046			7 1	6 4		
			U-238	0 281	0 065			39 0	9 0	80 4	
			Pu-239/240	0 016	0 043			2 2	6 0		
			Am-241	0 021	0 056			2 9	7 8		5 1
Roof	3	003 002	U-233/234	0 086	0 068	181 54	40	13 4	10 6		
			U-235	0 015	0 040			2 3	6 2		
			U-238	0 107	0 032			16 7	5 0	32 5	
			Pu-239/240	0 000	0 041			0 0	6 4		
			Am-241	0 018	0 048			2 8	7 5		2 8
Roof	4	004 002	U-233/234	0 140	0 071	173 97	40	21 0	10 6		
			U-235	0 015	0 042			2 2	6 3		
			U-238	0 070	0 060			10 5	9 0	33 7	
			Pu-239/240	-0 006	0 075			-0 9	11 2		
			Am-241	0 000	0 058			0 0	8 7		-0 9
Roof	5	005 002	U-233/234	0 176	0 034	279 64	40	42 3	8 2		
			U-235	0 000	0 042			0 0	10 1		
			U-238	0 151	0 034			36 3	8 2	78 7	
			Pu-239/240	0 000	0 046			0 0	11 1		
			Am-241	0 018	0 050			4 3	12 0		4 3
Roof	6	006 002	U-233/234	0 180	0 035	181 40	40	28 1	5 5		
			U-235	0 016	0 043			2 5	6 7		
			U-238	0 246	0 072			38 4	11 2	69 0	
			Pu-239/240	0 018	0 049			2 8	7 6		
			Am-241	0 080	0 054			12 5	8 4		15 3
Roof	7	007 002	U-233/234	0 106	0 073	298 20	40	27 2	18 7		
			U-235	0 000	0 043			0 0	11 0		
			U-238	0 129	0 035			33 1	9 0	60 3	
			Pu-239/240	0 000	0 044			0 0	11 3		
			Am-241	0 015	0 041			3 8	10 5		3 8

Survey Unit 77907 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Roof	8	008 002	U-233/234	0 044	0 059	176 39	40	6 7	9 0		
			U-235	0 000	0 041			0 0	6 2		
			U-238	0 203	0 059			30 8	9 0	37 5	
			Pu-239/240	0 000	0 045			0 0	6 8		
			Am-241	0 000	0 045			0 0	6 8		0 0
Roof	9	009 002	U-233/234	0 277	0 068	327 30	40	78 0	19 1		
			U-235	0 052	0 047			14 6	13 2		
			U-238	0 352	0 038			99 1	10 7	191 7	
			Pu-239/240	0 018	0 048			5 1	13 5		
			Am-241	0 096	0 210			27 0	59 1		32 1
Roof	10	010 002	U-233/234	0 167	0 076	211 24	40	30 3	13 8		
			U-235	0 009	0 071			1 6	12 9		
			U-238	0 127	0 058			23 1	10 5	55 1	
			Pu-239/240	0 000	0 044			0 0	8 0		
			Am-241	-0 225	0 260			-40 9	47 2		-40 9
Roof	11	011 002	U-233/234	0 311	0 034	240 50	40	64 3	7 0		
			U-235	0 031	0 042			6 4	8 7		
			U-238	0 218	0 059			45 1	12 2	115 9	
			Pu-239/240	0 000	0 044			0 0	9 1		
			Am-241	0 000	0 046			0 0	9 5		0 0
Roof	12	012 002	U-233/234	0 185	0 042	207 40	40	33 0	7 5		
			U-235	0 000	0 052			0 0	9 3		
			U-238	0 215	0 042			38 4	7 5	71 4	
			Pu-239/240	0 018	0 047			3 2	8 4		
			Am-241	0 019	0 052			3 4	9 3		6 6
Roof	13	013 002	U-233/234	Represents the average of 9 samples (includes the original) Refer to pages 8 and 9 of this data summary							
			U-235								
			U-238							259 5	
			Pu-239/240								
			Am-241								37 2
Door	14	014 002	U-233/234	0 113	0 089	3 66	40	0 4	0 3		
			U-235	0 019	0 053			0 1	0 2		
			U-238	0 213	0 075			0 7	0 2	1 1	
			Pu-239/240	0 038	0 061			0 1	0 2		
			Am-241	0 021	0 058			0 1	0 2		0 2

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Survey Unit 77907 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Door	15	015 002	U-233/234	0 321	0 043	4 82	40	1 3	0 2		
			U-235	0 000	0 054			0 0	0 2		
			U-238	0 192	0 043			0 8	0 2	2 1	
			Pu-239/240	0 019	0 051			0 1	0 2		
			Am-241	0 000	0 057			0 0	0 2		0 1
Door	16	016 002	U-233/234	0 260	0 037	4 82	40	1 1	0 2		
			U-235	0 000	0 046			0 0	0 2		
			U-238	0 220	0 077			0 9	0 3	2 0	
			Pu-239/240	-0 007	0 090			0 0	0 4		
			Am-241	0 061	0 055			0 3	0 2		0 2
Wall	17	017 002	U-233/234	0 486	0 065	54 67	40	22 9	3 1		
			U-235	0 067	0 046			3 2	2 2		
			U-238	0 470	0 065			22 1	3 1	48 1	
			Pu-239/240	0 017	0 046			0 8	2 2		
			Am-241	0 000	0 049			0 0	2 3		0 8

MIN	**1 1**	**-40 9**
MAX	259 5	37 2
MEAN	71 1	4 3
SD	**66 9**	**16 1**
$DCGL_W$ =	**5000**	**100**

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Survey Unit 77907 Investigation Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Annex A Roof	13	013 002	U-233/234	0 239	0 038	203 06	40	41 7	6 6		
			U-235	0 069	0 047			12 1	8 2		
			U-238	0 219	0 067			38 3	11 7	92 1	
			Pu-239/240	0 825	0 050			144 1	8 7		
			Am-241	0 119	0 054			20 8	9 4		164 9
Annex A Roof	A	001 001	U-233/234	0 262	0 039	326 63	40	73 6	11 0		
			U-235	0 036	0 049			10 1	13 8		
			U-238	0 399	0 069			112 1	19 4	195 8	
			Pu-239/240	0 044	0 04			4 2	11 5		
			Am-241	0 02	0 054			21 4	11 5		25 6
Annex A Roof	B	002 001	U-233/234	0 461	0 037	372 86	40	147 9	11 9		
			U-235	0 050	0 045			16 0	14 4		
			U-238	0 197	0 065			63 2	20 8	227 1	
			Pu-239/240	0 016	0 042			5 1	13 5		
			Am-241	0 034	0 046			10 9	14 8		16 0
Annex A Roof	C	003 001	U-233/234	0 465	0 038	385 03	40	154 0	12 6		
			U-235	0 035	0 047			11 6	15 6		
			U-238	0 592	0 078			196 1	25 8	361 7	
			Pu-239/240	0 000	0 038			0 0	12 6		
			Am-241	0 042	0 056			13 9	18 5		13 9
Annex A Roof	D	004 001	U-233/234	0 372	0 077	348 31	40	111 5	23 1		
			U-235	0 017	0 046			5 1	13 8		
			U-238	0 452	0 077			135 4	23 1	252 0	
			Pu-239/240	0 047	0 042			14 1	12 6		
			Am-241	0 017	0 045			5 1	13 5		19 2
Annex A Roof	E	005 001	U-233/234	0 476	0 083	425 68	40	174 3	30 4		
			U-235	0 066	0 087			24 2	31 9		
			U-238	0 553	0 070			202 5	25 6	401 0	
			Pu-239/240	0 015	0 041			5 5	15 0		
			Am-241	0 076	0 041			27 8	15 0		33 3
Annex A Roof	F	006 001	U-233/234	0 412	0 041	402 21	40	142 6	14 2		
			U-235	0 019	0 051			6 6	17 6		
			U-238	0 470	0 041			162 6	14 2	311 7	
			Pu-239/240	0 055	0 073			19 0	25 3		
			Am-241	0 038	0 052			13 1	18 0		32 2

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Survey Unit 77907 Investigation Results

Annex A Roof	G	007 001	U-233/234	0 346	0 039	325 57	40	96 9	10 9		
			U-235	0 036	0 048			10 1	13 4		
			U-238	0 368	0 069			103 1	19 3	210 1	
			Pu-239/240	0 030	0 041			8 4	11 5		
			Am-241	0 018	0 049			5 0	13 7		13 4
Annex A Roof	H	008 001	U-233/234	0 466	0 039	354 53	40	142 1	11 9		
			U-235	0 018	0 049			5 5	14 9		
			U-238	0 447	0 092			136 3	28 1	283 9	
			Pu-239/240	0 051	0 068			15 6	20 7		
			Am-241	0 003	0 098			0 9	29 9		16 5

MIN	**92 1**	**13 4**
MAX	401 0	164 9
MEAN	259 5	37 2
SD	**93 2**	**48 5**
$DCGL_W$ =	**5000**	**100**

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ATTACHMENT B
Survey Unit 77908 Data Summary

SURVEY UNIT 77908 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W=}$ 

>75% and <100% of $DCGL_{W=}$ 

Greater Than or Equal to $DCGL_{W=}$ 

Survey Unit 77908 Data Summary

Total Surface Activity Measurements

	15	20	
	Number Required	Number Obtained	
MIN	-2 4		dpm/100 cm^2
MAX	51 7		dpm/100 cm^2
MEAN	19 9		dpm/100 cm^2
STD DEV	15 5		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	15	20	
	Number Required	Number Obtained	
MIN	-1 5		dpm/100 cm^2
MAX	1 5		dpm/100 cm^2
MEAN	-0 8		dpm/100 cm^2
STD DEV	0 9		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

Media Sample Activity

Media Samples	13 *	14
	Number Required	Number Obtained

Total Uranium Results

MIN	0 4	dpm/100 cm^2
MAX	134 9	dpm/100 cm^2
MEAN	49 4	dpm/100 cm^2
STD DEV	37 8	dpm/100 cm^2
DCGL$_W$	5000	dpm/100 cm^2

Total Transuranic Results

MIN	0 1	dpm/100 cm^2
MAX	48 5	dpm/100 cm^2
MEAN	11 5	dpm/100 cm^2
STD DEV	14 4	dpm/100 cm^2
DCGL$_W$	100	dpm/100 cm^2

* Based on actual sample standard deviation (refer to "Post Survey Paint/Media Sample Summary Statistics Calculation Verification Worksheet" in the Building 779 project files)

Survey Unit 77908 Building 779 Total Surface Contamination Results

Total Surface Activity Survey					
Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)	
Instrument #	1194	1370	N/A	1 8	
Cal Due Date	10/22/99	10/8/99	N/A		
Efficiency (c/d)	0 221	0 222	N/A		

Total Surface Activity Measurements					
Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1	1194	08/09/99	6 0	31	18 8
2	1194	08/09/99	3 3	31	6 6
3	1194	08/09/99	2 0	31	0 8
4	1194	08/09/99	1 3	31	2 4
5	1194	08/09/99	4 0	31	9 8
6	1194	08/09/99	3 3	31	6 6
7	1370	08/10/99	10 0	31	36 8
8	1370	08/10/99	8 0	31	27 8
9	1370	08/10/99	10 0	31	36 8
10	1370	08/10/99	4 0	31	9 8
15	1370	08/10/99	6 0	31	18 8
16	1370	08/10/99	6 0	31	18 8
17	1370	08/10/99	6 0	31	18 8
18	1194	08/09/99	5 3	31	15 7
19	1370	08/10/99	11 3	31	42 7
20	1370	08/10/99	13 3	31	51 7
				MIN	2 4
				MAX	51 7
				MEAN	19 9
				SD	15 5
				Transuranic DCGL$_W$	100

Quality Control Survey			
NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
1265	N/A	N/A	3 7
3/2/00	N/A	N/A	
0 213	N/A	N/A	

Quality Control Measurements				
Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1265	10/20/99	13 3	43	45 1
1265	10/20/99	8 0	43	20 2

NOTE Locations 11 14 were relocated to survey unit 77906

Survey Unit 77908 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	1160	8/10/99	0 5	0 0	9 5
2	1160	8/10/99	0 0	-1 5	9 5
3	1160	8/10/99	0 0	-1 5	9 5
4	1160	8/10/99	1 0	1 5	9 5
5	1160	8/10/99	0 0	-1 5	9 5
6	1160	8/10/99	0 5	0 0	9 5
7	1160	8/10/99	0 5	0 0	9 5
8	1160	8/10/99	0 0	-1 5	9 5
9	1160	8/10/99	0 5	0 0	9 5
10	1160	8/10/99	0 0	-1 5	9 5
15	1160	8/10/99	0 0	-1 5	9 5
16	1160	8/10/99	0 0	-1 5	9 5
17	1160	8/10/99	0 0	-1 5	9 5
18	1160	8/10/99	0 0	-1 5	9 5
19	1160	8/10/99	0 5	0 0	9 5
20	1160	8/10/99	0 0	-1 5	9 5
			MIN	-1 5	
			MAX	1 5	
			MEAN	-0 8	
			SD	0 9	
			Transuranic $DCGL_W$	**20**	

NOTE Locations 11-14 were relocated to survey unit 77906

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Survey Unit 77908 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
West Wall	1	001 002	U-233/234	0 263	0 150	53 15	40	12 0	6 9		
			U-235	0 099	0 200			4 5	9 1		
			U-238	0 391	0 218			17 9	10 0	34 4	
			Pu-239/240	0 058	0 225			2 6	10 3		
			Am-241	0 000	0 102			0 0	4 7		2 6
West Wall	2	002 002	U-233/234	0 478	0 138	43 60	40	17 9	5 2		
			U-235	-0 028	0 182			-1 1	6 8		
			U-238	0 222	0 138			8 3	5 2	25 2	
			Pu-239/240	0 152	0 083			5 7	3 1		
			Am-241	0 146	0 153			5 5	5 7		11 2
West Wall	3	003 002	U-233/234	0 328	0 185	61 10	40	17 2	9 7		
			U-235	0 086	0 156			4 5	8 2		
			U-238	0 219	0 085			11 5	4 4	33 3	
			Pu-239/240	0 062	0 270			3 3	14 2		
			Am-241	0 000	0 092			0 0	4 8		3 3
West Wall	4	004 002	U-233/234	0 390	0 243	0 67	40	0 2	0 1		
			U-235	0 041	0 111			0 0	0 1		
			U-238	0 195	0 204			0 1	0 1	0 4	
			Pu-239/240	0 067	0 262			0 0	0 2		
			Am-241	0 050	0 135			0 0	0 1		0 1
West Wall	5	005 002	U-233/234	0 301	0 210	60 40	40	15 6	10 9		
			U-235	-0 034	0 257			-1 8	13 4		
			U-238	0 496	0 257			25 8	13 4	39 6	
			Pu-239/240	0 100	0 180			5 2	9 4		
			Am-241	0 001	0 249			0 1	12 9		5 2
West Wall	6	006 002	U-233/234	0 872	0 211	47 73	40	35 8	8 7		
			U-235	0 071	0 096			2 9	4 0		
			U-238	0 632	0 178			25 9	7 3	64 7	
			Pu-239/240	0 031	0 204			1 3	8 4		
			Am-241	-0 013	0 251			-0 5	10 3		0 7
West Wall	7	007 002	U-233/234	0 141	0 256	35 10	40	4 3	7 7		
			U-235	-0 015	0 183			-0 4	5 5		
			U-238	0 239	0 154			7 2	4 6	11 0	
			Pu-239/240	0 049	0 191			1 5	5 8		
			Am-241	0 071	0 096			2 1	2 9		3 6

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Survey Unit 77908 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
West Wall	8	008 002	U-233/234	0 318	0 283	34 83	40	9 5	8 5		
			U-235	-0 035	0 263			-1 0	7 9		
			U-238	0 362	0 098			10 8	2 9	19 3	
			Pu-239/240	0 172	0 217			5 2	6 5		
			Am-241	0 000	0 095			0 0	2 9		5 2
West Wall	9	009 002	U-233/234	0 649	0 336	33 40	40	18 6	9 7		
			U-235	-0 022	0 275			-0 6	7 9		
			U-238	0 810	0 275			23 3	7 9	41 3	
			Pu-239/240	0 110	0 199			3 2	5 7		
			Am-241	0 505	0 171			14 5	4 9		17 7
West Wall	10	010 002	U-233/234	1 210	0 257	28 40	40	29 6	6 3		
			U-235	0 050	0 195			1 2	4 8		
			U-238	2 830	0 219			69 1	5 4	99 9	
			Pu-239/240	0 435	0 166			10 6	4 1		
			Am-241	1 080	0 086			26 4	2 1		37 0
Roof	15	015 002	U-233/234	0 202	0 061	181 40	40	31 5	9 5		
			U-235	-0 005	0 112			-0 8	17 5		
			U-238	0 152	0 112			23 7	17 5	54 4	
			Pu-239/240	0 079	0 161			12 4	25 1		
			Am-241	0 001	0 202			0 2	31 5		12 6
Roof	16	016 002	U-233/234	0 192	0 242	249 50	40	41 2	51 9		
			U-235	0 037	0 099			7 8	21 2		
			U-238	0 400	0 099			85 9	21 2	134 9	
			Pu-239/240	0 032	0 087			6 9	18 6		
			Am-241	0 194	0 289			41 6	62 0		48 5
Roof	17	017 002	U-233/234	0 084	0 357	260 20	40	18 7	79 9		
			U-235	0 017	0 188			3 7	42 1		
			U-238	0 334	0 188			74 8	42 1	97 2	
			Pu-239/240	0 000	0 099			0 0	22 2		
			Am-241	0 054	0 152			12 0	34 0		12 0

Survey Unit 77908 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
West Wall	18	018 002	U-233/234	0 537	0 287	39 60	40	18 3	9 8		
			U-235	-0 021	0 192			-0 7	6 5		
			U-238	0 519	0 078			17 7	2 7	35 3	
			Pu-239/240	0 056	0 159			1 9	5 4		
			Am-241	0 000	0 080			0 0	2 7		1 9

NOTE Locations 11-14 were relocated to survey unit 77906

MIN	**0 4**	**0 1**
MAX	134 9	48 5
MEAN	49 4	11 5
SD	**37 8**	**14 4**
$DCGL_W$ =	**5000**	**100**

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Survey Unit 77908 Building 779 Sample Weight Data Sheet

RIN NUMBER 99A9009			RIN NUMBER 99A9009			SUM (*)
Sample Location Number	Event	Rad Screening Weight, grams	Sample Location Number	Event	Isotopic Analysis Weight, grams	Total Weight, grams
1	001 001	N/A	1	001 002	53 15	53 15
2	002 001	N/A	2	002 002	43 60	43 60
3	003 001	N/A	3	003 002	61 10	61 10
4	004 001	N/A	4	004 002	0 67	0 67
5	005 001	N/A	5	005 002	60 40	60 40
6	006 001	N/A	6	006 002	47 73	47 73
7	007 001	N/A	7	007 002	35 10	35 10
8	008 001	N/A	8	008 002	34 83	34 83
9	009 001	N/A	9	009 002	33 40	33 40
10	010 001	N/A	10	010 002	28 40	28 40
15	015 001	N/A	15	015 002	181 40	181 40
16	016 001	N/A	16	016 002	249 50	249 50
17	017 001	N/A	17	017 002	260 20	260 20
18	018 001	N/A	18	018 002	39 60	39 60

(*) The total weight of each sample used for the activity calculations is the sum of the weights of each aliquot removed for rad screens and the weights of each sample received for isotopic analysis

ATTACHMENT C
Survey Unit 77910 Data Summary

SURVEY UNIT 77910 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W=}$	
>75% and <100% of $DCGL_{W=}$	
Greater Than or Equal to $DCGL_{W=}$	

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Survey Unit 77910 Data Summary

Total Surface Activity Measurements

	15	21	
	Number Required	Number Obtained	
MIN	-4 5		dpm/100 cm^2
MAX	65 5		dpm/100 cm^2
MEAN	14 2		dpm/100 cm^2
STD DEV	18 6		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	15	21	
	Number Required	Number Obtained	
MIN	-0 9		dpm/100 cm^2
MAX	2 1		dpm/100 cm^2
MEAN	0 5		dpm/100 cm^2
STD DEV	0 9		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

Media Sample Activity

Media Samples	15	16
	Number Required	Number Obtained

Total Uranium Results

MIN	0 0	dpm/100 cm^2
MAX	10 6	dpm/100 cm^2
MEAN	3 7	dpm/100 cm^2
STD DEV	4 2	dpm/100 cm^2
DCGL$_W$	5000	dpm/100 cm^2

Total Transuranic Results

MIN	0 1	dpm/100 cm^2
MAX	0 8	dpm/100 cm^2
MEAN	0 3	dpm/100 cm^2
STD DEV	0 2	dpm/100 cm^2
DCGL$_W$	100	dpm/100 cm^2

Survey Unit 77910 Building 779 Total Surface Contamination Results

Total Surface Activity Survey

Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
Instrument #	2358	1194	N/A	2 3
Cal Due Date	1/19/00	10/22/99	N/A	
Efficiency (c/d)	0 220	0 221	N/A	

Quality Control Survey

NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
1194	N/A	N/A	2 7
10/22/99	N/A	N/A	
0 221	N/A	N/A	

Total Surface Activity Measurements

Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1	2358	08/23/99	4 0	34	7 7
2	2358	08/23/99	6 0	34	16 8
3	2358	08/23/99	3 3	34	4 5
4	2358	08/23/99	2 0	34	1 4
5	2358	08/23/99	4 0	34	7 7
6	2358	08/23/99	3 3	34	4 5
7	2358	08/23/99	4 0	34	7 7
8	2358	08/23/99	6 7	34	20 0
9	2358	08/23/99	16 7	34	65 5
10	2358	08/23/99	1 3	34	4 5
11	2358	08/23/99	6 0	34	16 8
12	2358	08/23/99	6 7	34	20 0
13	2358	08/23/99	5 3	34	13 6
14	2358	08/23/99	16 7	34	65 5
15	2358	08/23/99	1 3	34	4 5
16	1194	08/24/99	4 7	34	10 8
17	1194	08/24/99	4 7	34	10 8
18	1194	08/24/99	2 7	34	1 8
19	1194	08/24/99	4 0	34	7 7
20	1194	08/24/99	4 0	34	7 7
21	1194	08/24/99	6 7	34	19 9
				MIN	-4 5
				MAX	65 5
				MEAN	14 2
				SD	18 6
				Transuranic DCGL$_W$	100

Quality Control Measurements

Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1194	08/24/99	7 3	36	20 8
1194	08/24/99	6 0	36	14 9

Survey Unit 77910 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	814	8/23/99	0 5	0 6	8 3
2	814	8/23/99	1 0	2 1	8 3
3	814	8/23/99	0 5	0 6	8 3
4	814	8/23/99	0 5	0 6	8 3
5	814	8/23/99	0 5	0 6	8 3
6	814	8/23/99	0 5	0 6	8 3
7	814	8/23/99	0 5	0 6	8 3
8	814	8/23/99	0 5	0 6	8 3
9	814	8/23/99	0 5	0 6	8 3
10	814	8/23/99	0 5	0 6	8 3
11	814	8/23/99	0 5	0 6	8 3
12	814	8/23/99	0 0	-0 9	8 3
13	814	8/23/99	1 0	2 1	8 3
14	814	8/23/99	0 5	0 6	8 3
15	814	8/23/99	0 0	-0 9	8 3
16	814	8/24/99	1 0	2 1	6 5
17	814	8/24/99	0 0	-0 9	6 5
18	814	8/24/99	0 5	0 6	6 5
19	814	8/24/99	0 5	0 6	6 5
20	814	8/24/99	0 0	-0 9	6 5
21	814	8/24/99	0 5	0 6	6 5
			MIN	-0 9	
			MAX	2 1	
			MEAN	0 5	
			SD	0 9	
			Transuranic $DCGL_W$	**20**	

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Survey Unit 77910 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Door #8 (outside Room 160)	1	001 001	U-234	0 090	0 029	2 03	40	0 2	0 1		
			U-235	0 010	0 032			0 0	0 1		
			U-238	0 068	0 029			0 1	0 1	0 3	
			Pu-239	0 005	0 037			0 0	0 1		
			Am-241	0 059	0 072			0 1	0 1		0 1
Door #8 (outside Room 160)	2	002 001	U-234	0 070	0 230	0 34	40	0 0	0 1		
			U-235	0 016	0 230			0 0	0 1		
			U-238	0 048	0 220			0 0	0 1	0 0	
			Pu-239	0 058	0 070			0 0	0 0		
			Am-241	0 120	0 550			0 0	0 2		0 1
Door #8 (outside Room 160)	4	004 001	U-234	0 600	0 039	6 39	40	3 3	0 2		
			U-235	0 037	0 039			0 2	0 2		
			U-238	0 610	0 035			3 4	0 2	6 9	
			Pu-239	0 026	0 050			0 1	0 3		
			Am-241	0 025	0 010			0 1	0 1		0 3
Door #6 (outside Room 150)	5	005 001	U-234	0 058	0 034	3 16	40	0 2	0 1		
			U-235	0 011	0 032			0 0	0 1		
			U-238	0 034	0 034			0 1	0 1	0 3	
			Pu-239	0 113	0 038			0 3	0 1		
			Am-241	0 086	0 028			0 2	0 1		0 5
Door #6 (outside Room 150)	6	006 001	U-234	0 083	0 030	2 50	40	0 2	0 1		
			U-235	0 007	0 027			0 0	0 1		
			U-238	0 071	0 023			0 2	0 0	0 3	
			Pu-239	0 183	0 023			0 4	0 0		
			Am-241	0 093	0 023			0 2	0 0		0 6
Door #6 (outside Room 150)	7	007 001	U-234	0 110	0 210	0 37	40	0 0	0 1		
			U-235	0 038	0 240			0 0	0 1		
			U-238	0 070	0 160			0 0	0 1	0 1	
			Pu-239	0 072	0 050			0 0	0 0		
			Am-241	0 960	0 270			0 3	0 1		0 3

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Survey Unit 77910 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (m^2)	INDIVIDUAL NUCLIDE (dpm/100cm^2)	ESTIMATED MDA (dpm/100cm^2)	URANIUM TOTAL (dpm/100cm^2) $DCGL_W$=5000	TRANSURANIC TOTAL (dpm/100cm^2) $DCGL_W$=100
Door #6 (outside Room 150)	10	010 001	U-234	0 600	0 035	9 76	40	5 0	0 3		
			U-235	0 026	0 032			0 2	0 3		
			U-238	0 560	0 025			4 7	0 2	10 0	
			Pu-239	-0 003	0 050			0 0	0 4		
			Am-241	0 011	0 007			0 1	0 1		0 1
Door #7 (outside Room 154)	11	011 001	U-234	0 042	0 036	2 31	40	0 1	0 1		
			U-235	0 008	0 024			0 0	0 0		
			U-238	0 064	0 024			0 1	0 0	0 2	
			Pu-239	0 123	0 034			0 2	0 1		
			Am-241	0 021	0 031			0 0	0 1		0 3
Door #7 (outside Room 154)	12	012 001	U-234	0 140	0 150	0 43	40	0 1	0 1		
			U-235	0 010	0 170			0 0	0 1		
			U-238	0 360	0 078			0 1	0 0	0 2	
			Pu-239	0 089	0 019			0 0	0 0		
			Am-241	0 580	0 860			0 2	0 3		0 2
Door #7 (outside Room 154)	13	013 001	U-234	0 130	0 170	0 37	40	0 0	0 1		
			U-235	-0 006	0 140			0 0	0 0		
			U-238	0 190	0 140			0 1	0 0	0 1	
			Pu-239	0 199	0 061			0 1	0 0		
			Am-241	0 260	0 340			0 1	0 1		0 1

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Survey Unit 77910 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Door #7 (outside Room 154)	15	015 001	U-234	0 510	0 032	6 36	40	2 8	0 2		
			U-235	0 030	0 035			0 2	0 2		
			U-238	0 570	0 025			3 1	0 1	6 1	
			Pu-239	0 033	0 032			0 2	0 2		
			Am-241	0 112	0 013			0 6	0 1		0 8
Door #8 (outside Room 160)	16	016 001	U-234	0 082	0 045	2 35	40	0 2	0 1		
			U-235	0 004	0 041			0 0	0 1		
			U-238	0 048	0 030			0 1	0 1	0 3	
			Pu-239	0 025	0 040			0 1	0 1		
			Am-241	0 013	0 015			0 0	0 0		0 1
Door #8 (outside Room 160)	17	017 001	U-234	0 510	0 039	11 64	40	5 1	0 4		
			U-235	0 018	0 035			0 2	0 4		
			U-238	0 349	0 024			3 5	0 2	8 8	
			Pu-239	0 015	0 023			0 2	0 2		
			Am-241	0 007	0 007			0 1	0 1		0 2
Door #8 (outside Room 160)	18	018 001	U-234	0 810	0 042	6 09	40	4 2	0 2		
			U-235	0 066	0 030			0 3	0 2		
			U-238	0 650	0 027			3 4	0 1	8 0	
			Pu-239	0 007	0 037			0 0	0 2		
			Am-241	0 021	0 018			0 1	0 1		0 1
Door #8 (outside Room 160)	19	019 001	U-234	0 500	0 043	7 49	40	3 2	0 3		
			U-235	0 027	0 045			0 2	0 3		
			U-238	0 550	0 036			3 5	0 2	6 9	
			Pu-239	0 016	0 024			0 1	0 2		
			Am-241	0 025	0 016			0 2	0 1		0 3
Door #7 (outside Room 154)	20	020 001	U-234	0 770	0 033	8 55	40	5 7	0 2		
			U-235	0 028	0 025			0 2	0 2		
			U-238	0 640	0 015			4 7	0 1	10 6	
			Pu-239	0 020	0 033			0 1	0 2		
			Am-241	0 012	0 020			0 1	0 1		0 2

Note Surface media for locations 3, 8, 9, and 14 was removed prior to survey

MIN	**0 0**	**0 1**
MAX	10 6	0 8
MEAN	3 7	0 3
SD	**4 2**	**0 2**
$DCGL_W$ =	**5000**	**100**

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ATTACHMENT D
Survey Unit 77919 Data Summary

SURVEY UNIT 77919 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W=}$ 

>75% and <100% of $DCGL_{W=}$ 

Greater Than or Equal to $DCGL_{W=}$ 

Survey Unit 77919 Data Summary

Total Surface Activity Measurements

15	15
Number Required	Number Obtained

MIN	0 9	dpm/100 cm^2
MAX	29 1	dpm/100 cm^2
MEAN	12 3	dpm/100 cm^2
STD DEV	9 1	dpm/100 cm^2
TRANSURANIC DCGL$_W$	100	dpm/100 cm^2

Removable Activity Measurements

15	15
Number Required	Number Obtained

MIN	-0 3	dpm/100 cm^2
MAX	2 7	dpm/100 cm^2
MEAN	0 3	dpm/100 cm^2
STD DEV	1 0	dpm/100 cm^2
TRANSURANIC DCGL$_W$	20	dpm/100 cm^2

Media Sample Activity

Media Samples	N/A	N/A
	Number Required	Number Obtained

Total Uranium Results

MIN	N/A	dpm/100 cm^2
MAX	N/A	dpm/100 cm^2
MEAN	N/A	dpm/100 cm^2
STD DEV	N/A	dpm/100 cm^2
DCGL$_W$	N/A	dpm/100 cm^2

Total Transuranic Results

MIN	N/A	dpm/100 cm^2
MAX	N/A	dpm/100 cm^2
MEAN	N/A	dpm/100 cm^2
STD DEV	N/A	dpm/100 cm^2
DCGL$_W$	N/A	dpm/100 cm^2

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Survey Unit 77919 Building 779 Total Surface Contamination Results

Total Surface Activity Survey						Quality Control Survey				
Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)		NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)	
Instrument #	1265	N/A	N/A	2 5		2358	N/A	N/A	4 0	
Cal Due Date	3/2/00	N/A	N/A			1/19/00	N/A	N/A		
Efficiency (c/d)	0 213	N/A	N/A			0 214	N/A	N/A		
	Total Surface Activity Measurements					Quality Control Measurements				
Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1	1265	10/26/99	4 0	37	7 1					
2	1265	10/26/99	2 7	37	0 9					
3	1265	10/26/99	4 0	37	7 1					
4	1265	10/26/99	5 3	37	13 2					
5	1265	10/26/99	2 7	37	0 9					
6	1265	10/26/99	6 7	37	19 7					
7	1265	10/26/99	5 3	37	13 2					
8	1265	10/26/99	7 3	37	22 6	2358	10/26/99	5 3	44	6 1
9	1265	10/26/99	3 3	37	3 8					
10	1265	10/26/99	4 0	37	7 1					
11	1265	10/26/99	7 3	37	22 6					
12	1265	10/26/99	6 7	37	19 7					
13	1265	10/26/99	2 7	37	0 9					
14	1265	10/26/99	6 0	37	16 5					
15	1265	10/26/99	8 7	37	29 1	2358	10/26/99	5 3	44	6 1
				MIN	0 9					
				MAX	29 1					
				MEAN	12 3					
				SD	9 1					
				Transuranic DCGL$_W$	100					

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Survey Unit 77919 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	814	10/26/99	0 5	1 2	6 5
2	1407	10/26/99	0 0	-0 3	6 5
3	814	10/26/99	0 5	1 2	6 5
4	1407	10/26/99	0 0	-0 3	6 5
5	814	10/26/99	0 0	-0 3	6 5
6	1407	10/26/99	0 0	-0 3	6 5
7	814	10/26/99	0 0	-0 3	6 5
8	1407	10/26/99	0 0	-0 3	6 5
9	814	10/26/99	0 0	-0 3	6 5
10	1407	10/26/99	0 5	1 2	6 5
11	814	10/26/99	0 0	-0 3	6 5
12	1407	10/26/99	0 0	-0 3	6 5
13	814	10/26/99	1 0	2 7	6 5
14	1407	10/26/99	0 5	1 2	6 5
15	814	10/26/99	0 0	-0 3	6 5
			MIN	-0 3	
			MAX	2 7	
			MEAN	0 3	
			SD	1 0	
			Transuranic $DCGL_W$	**20**	

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ATTACHMENT E
Survey Unit 77921 Data Summary

SURVEY UNIT 77921 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_W$ =

>75% and <100% of $DCGL_W$ =

Greater Than or Equal to $DCGL_W$ =

Survey Unit 77921 Data Summary

Total Surface Activity Measurements

	17	29	
	Number Required	Number Obtained	
MIN	-4 5		dpm/100 cm^2
MAX	63 2		dpm/100 cm^2
MEAN	17 0		dpm/100 cm^2
STD DEV	15 4		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	17	29	
	Number Required	Number Obtained	
MIN	0		dpm/100 cm^2
MAX	6		dpm/100 cm^2
MEAN	1		dpm/100 cm^2
STD DEV	2		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

Media Sample Activity

Media Samples	17	17
	Number Required	Number Obtained

Total Uranium Results

MIN	0 2	dpm/100 cm^2
MAX	40 8	dpm/100 cm^2
MEAN	17 0	dpm/100 cm^2
STD DEV	12.1	dpm/100 cm^2
DCGL$_W$	5000	dpm/100 cm^2

Total Transuranic Results

MIN	0 2	dpm/100 cm^2
MAX	19 3	dpm/100 cm^2
MEAN	5 7	dpm/100 cm^2
STD DEV	5 9	dpm/100 cm^2
DCGL$_W$	100	dpm/100 cm^2

Survey Unit 77921 Building 779 Total Surface Contamination Results

Total Surface Activity Survey

Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
Instrument #	2349	1194	2358	3 0
Cal Due Date	12/24/99	10/22/99	1/19/00	
Efficiency (c/d)	0 224	0 221	0 220	

Total Surface Activity Measurements

Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm²)	(dpm/100 cm²)
1	2349	08/17/99	2 0	37	-4 5
2	1194	08/16/99	4 0	38	4 5
3	2349	08/17/99	12 0	37	40 2
4	1194	08/16/99	6 7	38	16 7
5	1194	08/16/99	4 7	38	7 7
6	2349	08/17/99	12 7	37	43 4
7	2349	08/17/99	12 0	37	40 2
8	2349	08/17/99	5 3	37	10 3
9	1194	08/16/99	7 3	38	19 4
10	2349	08/17/99	8 7	37	25 5
11	2349	08/17/99	3 3	37	1 3
12	2349	08/17/99	6 0	37	13 4
13	2349	08/17/99	7 3	37	19 2
14	1194	08/16/99	8 0	38	22 6
15	1194	08/16/99	2 0	38	4 5
16	1194	08/16/99	2 0	38	4 5
17	2349	08/17/99	6 7	37	16 5
18	1194	08/16/99	17 0	38	63 2
19	1194	08/16/99	8 0	38	22 6
20	1194	08/16/99	6 0	38	13 6
21	1194	08/16/99	7 3	38	19 4
22	2358	08/18/99	6 3	38	15 0
23	2358	08/18/99	5 3	38	10 5
24	2358	08/18/99	2 7	38	1 4
25	2358	08/18/99	8 7	38	25 9
26	2358	08/18/99	5 3	38	10 5
27	2358	08/18/99	6 0	38	13 6
28	2358	08/18/99	5 3	38	10 5
29	2358	08/18/99	8 0	38	22 7
				MIN	-4 5
				MAX	63 2
				MEAN	17 0
				SD	15 4
				Transuranic DCGL$_W$	100

Quality Control Survey

NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
1370	N/A	N/A	2 7
10/8/99	N/A	N/A	
0 222	N/A	N/A	

Quality Control Measurements

Serial #	Date	(cpm)	MDA (dpm/100 cm²)	(dpm/100 cm²)
1370	08/18/99	8 7	36	27 1
1370	08/18/99	12 7	36	45 1

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Survey Unit 77921 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	1160	8/18/99	0	0	7
2	1160	8/18/99	0	0	7
3	1160	8/18/99	0	0	7
4	1160	8/18/99	0	0	7
5	1160	8/18/99	1	3	7
6	1160	8/18/99	0	0	7
7	1160	8/18/99	0	0	7
8	1160	8/18/99	0	0	7
9	1160	8/18/99	0	0	7
10	1160	8/18/99	0	0	7
11	1160	8/18/99	1	3	7
12	1160	8/18/99	0	0	7
13	1160	8/18/99	1	3	7
14	1160	8/18/99	0	0	7
15	1160	8/18/99	0	0	7
16	1160	8/18/99	0	0	7
17	1160	8/18/99	0	0	7
18	1160	8/18/99	2	6	7
19	1160	8/18/99	1	3	7
20	1160	8/18/99	0	0	7
21	1160	8/18/99	1	3	7
22	1160	8/18/99	1	1	7
23	1160	8/18/99	0	0	7
24	1160	8/18/99	1	1	7
25	1160	8/18/99	0	0	7
26	1160	8/18/99	0	0	7
27	1160	8/18/99	1	1	7
28	1160	8/18/99	0	0	7
29	1160	8/18/99	0	0	7
			MIN	0	
			MAX	6	
			MEAN	1	
			SD	2	
			Transuranic $DCGL_W$	**20**	

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Survey Unit 77921 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Room Under Stairway, Ceiling	1	001 001	U-233/234	0 354	0 200	9 22	40	2 8	1 6		
			U-235	0 059	0 168			0 5	1 3		
			U-238	0 303	0 091			2 4	0 7	5 7	
			Pu-239/240	0 131	0 222			1 0	1 8		
			Am-241	0 346	0 104			2 7	0 8		3 8
Rooms 146, 147, 148 and 151, Wall 9	2	002 001	U-233/234	0 281	0 076	11 31	40	2 7	0 7		
			U-235	-0 034	0 220			-0 3	2 1		
			U-238	0 506	0 076			4 9	0 7	7 3	
			Pu-239/240	0 126	0 114			1 2	1 1		
			Am-241	0 149	0 196			1 4	1 9		2 7
Room 145, Wall 4	3	003 001	U-233/234	0 118	0 183	26 07	40	2 6	4 1		
			U-235	0 021	0 137			0 5	3 1		
			U-238	0 275	0 075			6 2	1 7	9 3	
			Pu-239/240	0 014	0 158			0 3	3 5		
			Am-241	-0 007	0 138			-0 1	3 1		0 2
Room 145, Wall 4	4	004 001	U-233/234	0 197	0 211	34 58	40	5 9	6 3		
			U-235	0 000	0 097			0 0	2 9		
			U-238	0 178	0 097			5 3	2 9	11 2	
			Pu-239/240	0 026	0 255			0 8	7 6		
			Am-241	0 039	0 105			1 2	3 1		1 9
Rooms 146, 147, 148, and 151, Wall 8	5	005 001	U-233/234	0 658	0 217	38 19	40	21 6	7 1		
			U-235	0 000	0 081			0 0	2 7		
			U-238	0 583	0 177			19 2	5 8	40 8	
			Pu-239/240	0 042	0 281			1 4	9 2		
			Am-241	-0 009	0 183			-0 3	6 0		1 1
Rooms 146, 147, 148 and 151, Floor	6	006 001	U-233/234	0 524	0 156	19 58	40	8 8	2 6		
			U-235	-0 023	0 208			-0 4	3 5		
			U-238	0 898	0 156			15 1	2 6	23 6	
			Pu-239/240	0 380	0 335			6 4	5 6		
			Am-241	0 177	0 096			3 0	1 6		9 4
Rooms 146, 147, 148 and 151, Floor	7	007 001	U-233/234	0 881	0 278	11 58	40	8 8	2 8		
			U-235	0 038	0 104			0 4	1 0		
			U-238	0 584	0 255			5 8	2 5	15 0	
			Pu-239/240	0 818	0 216			8 1	2 2		
			Am-241	0 479	0 183			4 8	1 8		12 9

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Survey Unit 77921 Building 779 Paint/Solid Media Sample Results

Room 145, Wall 2	8	008 001	U-233/234	0 294	0 191	18 96	40	4 8	3 1		
			U-235	-0 007	0 143			-0 1	2 3		
			U-238	0 143	0 078			2 3	1 3	7 0	
			Pu-239/240	0 744	0 204			12 1	3 3		
			Am-241	0 442	0 100			7 2	1 6		19 3
Room 145, Wall 2	9	009 001	U-233/234	0 278	0 320	34 21	40	8 2	9 4		
			U-235	0 044	0 124			1 3	3 6		
			U-238	0 163	0 206			4 8	6 1	14 3	
			Pu-239/240	0 118	0 215			3 5	6 3		
			Am-241	0 000	0 079			0 0	2 3		3 5
Rooms 146, 147, 148, and 151, Ramp	10	010 001	U-233/234	0 906	0 259	25 65	40	20 0	5 7		
			U-235	-0 010	0 186			-0 2	4 1		
			U-238	0 762	0 061			16 8	1 3	36 6	
			Pu-239/240	0 217	0 073			4 8	1 6		
			Am-241	0 433	0 084			9 6	1 8		14 3
Rooms 146, 147, 148, and 151, Wall 4	11	011 001	U-233/234	0 693	0 207	8 13	40	4 8	1 4		
			U-235	0 126	0 226			0 9	1 6		
			U-238	0 382	0 207			2 7	1 4	8 4	
			Pu-239/240	0 027	0 175			0 2	1 2		
			Am-241	0 155	0 203			1 1	1 4		1 3
Rooms 146, 147, 148, and 151, Wall 1	12	012 001	U-233/234	0 328	0 178	32 08	40	9 1	4 9		
			U-235	-0 026	0 194			-0 7	5 4		
			U-238	0 382	0 178			10 5	4 9	18 9	
			Pu-239/240	0 019	0 214			0 5	5 9		
			Am-241	0 056	0 158			1 5	4 4		2 1
Rooms 146, 147, 148, and 151, Door 5	13	013 001	U-233/234	-0 010	0 237	2 94	40	0 0	0 6		
			U-235	-0 012	0 142			0 0	0 4		
			U-238	0 120	0 065			0 3	0 2	0 2	
			Pu-239/240	0 187	0 235			0 5	0 6		
			Am-241	0 057	0 077			0 1	0 2		0 6
Rooms 146, 147, 148, and 151, Wall 2	14	014 001	U-233/234	0 284	0 204	25 55	40	6 2	4 5		
			U-235	0 062	0 146			1 4	3 2		
			U-238	0 308	0 146			6 8	3 2	14 4	
			Pu-239/240	0 136	0 211			3 0	4 6		
			Am-241	-0 009	0 183			-0 2	4 0		2 8
Rooms 146, 147, 148, and 151, Wall 2	15	015 001	U-233/234	0 415	0 252	29 82	40	10 6	6 5		
			U-235	0 049	0 137			1 2	3 5		
			U-238	0 400	0 163			10 3	4 2	22 2	
			Pu-239/240	0 023	0 151			0 6	3 9		
			Am-241	0 000	0 084			0 0	2 1		0 6

Survey Unit 77921 Building 779 Paint/Solid Media Sample Results

Rooms 146, 147, 148, and 151, Wall 3	16	016 001	U-233/234	0 500	0 233	41 57	40	17 9	8 3		
			U-235	-0 025	0 233			-0 9	8 3		
			U-238	0 639	0 233			22 9	8 3	39 8	
			Pu-239/240	0 211	0 224			7 5	8 0		
			Am-241	0 111	0 188			4 0	6 7		11 5
Landing to Hallway, Floor	17	017 001	U-233/234	0 241	0 241	28 32	40	5 9	5 9		
			U-235	0 031	0 084			0 8	2 0		
			U-238	0 294	0 183			7 2	4 5	13 8	
			Pu-239/240	0 182	0 196			4 4	4 8		
			Am-241	0 201	0 091			4 9	2 2		9 3

MIN	**0 2**	**0 2**
MAX	40 8	19 3
MEAN	17 0	5 7
SD	**12 1**	**5 9**
$DCGL_W$ =	**5000**	**100**

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ATTACHMENT F
Survey Unit 77922 Data Summary

SURVEY UNIT 77922 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W=}$	
>75% and <100% of $DCGL_{W=}$	
Greater Than or Equal to $DCGL_{W=}$	

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Survey Unit 77922 Data Summary

Total Surface Activity Measurements

	24 Number Required	24 Number Obtained	
MIN	0 3		dpm/100 cm^2
MAX	42 2		dpm/100 cm^2
MEAN	11 8		dpm/100 cm^2
STD DEV	10 3		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	24 Number Required	24 Number Obtained	
MIN	-0 6		dpm/100 cm^2
MAX	3 9		dpm/100 cm^2
MEAN	0 0		dpm/100 cm^2
STD DEV	1 2		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

Media Sample Activity

Media Samples	24 Number Required	24 Number Obtained

Total Uranium Results

MIN	2 0	dpm/100 cm^2
MAX	57 9	dpm/100 cm^2
MEAN	15 7	dpm/100 cm^2
STD DEV	18 5	dpm/100 cm^2
DCGL$_W$	5000	dpm/100 cm^2

Total Transuranic Results

MIN	-0 1	dpm/100 cm^2
MAX	25 5	dpm/100 cm^2
MEAN	5 3	dpm/100 cm^2
STD DEV	6 4	dpm/100 cm^2
DCGL$_W$	100	dpm/100 cm^2

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Survey Unit 77922 Building 779 Total Surface Contamination Results

Total Surface Activity Survey

Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
Instrument #	1370	N/A	N/A	26
Cal Due Date	10/8/99	N/A	N/A	
Efficiency (c/d)	0 222	N/A	N/A	

Quality Control Survey

NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
1265	N/A	N/A	40
3/2/00	N/A	N/A	
0 213	N/A	N/A	

Total Surface Activity Measurements

Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1	1370	08/19/99	40	36	62
2	1370	08/19/99	33	36	30
3	1370	08/19/99	47	36	93
4	1370	08/19/99	60	36	152
5	1370	08/19/99	33	36	30
6	1370	08/19/99	47	36	93
7	1370	08/19/99	67	36	183
8	1370	08/19/99	33	36	30
9	1370	08/19/99	107	36	364
10	1370	08/19/99	47	36	93
11	1370	08/19/99	33	36	30
12	1370	08/19/99	60	36	152
13	1370	08/19/99	47	36	93
14	1370	08/19/99	33	36	30
15	1370	08/19/99	60	36	152
16	1370	08/19/99	73	36	210
17	1370	08/19/99	40	36	62
18	1370	08/19/99	40	36	62
19	1370	08/19/99	120	36	422
20	1370	08/19/99	27	36	03
21	1370	08/19/99	53	36	120
22	1370	08/19/99	40	36	62
23	1370	08/19/99	73	36	210
24	1370	08/19/99	47	36	93
				MIN	0
				MAX	422
				MEAN	118
				SD	103
				Transuranic DCGL$_W$	100

Quality Control Measurements

Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1265	10/20/99	87	44	221
1265	10/20/99	107	44	315

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Survey Unit 77922 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	814	8/19/99	0 0	-0 6	7 5
2	814	8/19/99	0 0	-0 6	7 5
3	814	8/19/99	0 0	-0 6	7 5
4	814	8/19/99	0 5	0 9	7 5
5	814	8/19/99	0 0	-0 6	7 5
6	814	8/19/99	0 5	0 9	7 5
7	814	8/19/99	1 0	2 4	7 5
8	814	8/19/99	0 5	0 9	7 5
9	814	8/19/99	0 0	-0 6	7 5
10	814	8/19/99	0 0	-0 6	7 5
11	814	8/19/99	0 0	-0 6	7 5
12	814	8/19/99	1 5	3 9	7 5
13	814	8/19/99	0 0	-0 6	7 5
14	814	8/19/99	0 0	-0 6	7 5
15	814	8/19/99	0 5	0 9	7 5
16	814	8/19/99	0 0	-0 6	7 5
17	814	8/19/99	0 0	-0 6	7 5
18	814	8/19/99	0 5	0 9	7 5
19	814	8/19/99	0 0	-0 6	7 5
20	814	8/19/99	0 0	-0 6	7 5
21	814	8/19/99	0 0	-0 6	7 5
22	814	8/19/99	0 0	-0 6	7 5
23	814	8/19/99	0 0	-0 6	7 5
24	814	8/19/99	0 0	-0 6	7 5
			MIN	-0 6	
			MAX	3 9	
			MEAN	0 0	
			SD	1 2	
			Transuranic $DCGL_W$	**20**	

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Survey Unit 77922 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Ceiling	1	001 001	U-233/234	0 173	0 039	14 07	40	2 1	0 5		
			U-235	0 018	0 048			0 2	0 6		
			U-238	0 266	0 069			3 2	0 8	5 5	
			Pu-239/240	0 000	0 052			0 0	0 6		
			Am-241	0 018	0 050			0 2	0 6		0 2
Ceiling	2	002 001	U-233/234	0 110	0 061	14 90	40	1 4	0 8		
			U-235	0 000	0 043			0 0	0 6		
			U-238	0 274	0 061			3 5	0 8	4 9	
			Pu-239/240	0 073	0 050			0 9	0 6		
			Am-241	0 052	0 047			0 7	0 6		1 6
Ceiling	3	003 001	U-233/234	0 414	0 036	9 64	40	3 4	0 3		
			U-235	0 000	0 045			0 0	0 4		
			U-238	0 473	0 064			3 9	0 5	7 4	
			Pu-239/240	0 067	0 089			0 6	0 7		
			Am-241	0 089	0 048			0 7	0 4		1 3
Ceiling	4	004 001	U-233/234	0 688	0 072	1 63	40	1 0	0 1		
			U-235	0 031	0 042			0 0	0 1		
			U-238	0 695	0 034			1 0	0 0	2 0	
			Pu-239/240	0 260	0 047			0 4	0 1		
			Am-241	2 120	0 047			3 0	0 1		3 3
Ceiling	5	005 001	U-233/234	0 050	0 068	10 54	40	0 5	0 6		
			U-235	0 000	0 040			0 0	0 4		
			U-238	0 174	0 057			1 6	0 5	2 0	
			Pu-239/240	1 300	0 056			11 8	0 5		
			Am-241	0 128	0 058			1 2	0 5		12 9
Ceiling	6	006 001	U-233/234	0 129	0 035	11 50	40	1 3	0 3		
			U-235	0 032	0 043			0 3	0 4		
			U-238	0 154	0 035			1 5	0 3	3 1	
			Pu-239/240	0 059	0 053			0 6	0 5		
			Am-241	0 358	0 075			3 5	0 7		4 1
Floor	7	007 001	U-233/234	0 395	0 030	17 89	40	6 1	0 5		
			U-235	0 041	0 037			0 6	0 6		
			U-238	0 418	0 062			6 4	1 0	13 1	
			Pu-239/240	0 916	0 079			14 1	1 2		
			Am-241	0 182	0 045			2 8	0 7		16 9

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Survey Unit 77922 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Floor	8	008 001	U-233/234	0 403	0 069	13 32	40	4 6	0 8		
			U-235	0 015	0 041			0 2	0 5		
			U-238	0 375	0 033			4 3	0 4	9 1	
			Pu-239/240	0 548	0 045			6 3	0 5		
			Am-241	0 318	0 041			3 6	0 5		9 9
Floor	9	009 001	U-233/234	0 669	0 057	41 59	40	23 9	2 0		
			U-235	0 015	0 039			0 5	1 4		
			U-238	0 619	0 056			22 1	2 0	46 6	
			Pu-239/240	0 017	0 047			0 6	1 7		
			Am-241	0 037	0 050			1 3	1 8		1 9
Wall 3	10	010 001	U-233/234	0 216	0 062	16 39	40	3 0	0 9		
			U-235	0 000	0 044			0 0	0 6		
			U-238	0 246	0 035			3 5	0 5	6 5	
			Pu-239/240	0 019	0 051			0 3	0 7		
			Am-241	0 000	0 179			0 0	2 5		0 3
Ceiling	11	011 001	U-233/234	0 269	0 036	11 94	40	2 8	0 4		
			U-235	0 066	0 045			0 7	0 5		
			U-238	0 128	0 064			1 3	0 7	4 8	
			Pu-239/240	0 019	0 051			0 2	0 5		
			Am-241	0 034	0 101			0 3	1 0		0 5
Ceiling	12	012 001	U-233/234	0 124	0 062	20 20	40	2 2	1 1		
			U-235	0 032	0 043			0 6	0 7		
			U-238	0 226	0 062			3 9	1 1	6 6	
			Pu-239/240	0 000	0 048			0 0	0 8		
			Am-241	0 016	0 043			0 3	0 7		0 3
Floor	13	013 001	U-233/234	0 644	0 034	40 09	40	22 2	1 2		
			U-235	0 016	0 042			0 6	1 4		
			U-238	0 914	0 060			31 5	2 1	54 3	
			Pu-239/240	0 358	0 083			12 3	2 9		
			Am-241	0 000	0 041			0 0	1 4		12 3
Floor	14	014 001	U-233/234	0 501	0 074	32 57	40	14 0	2 1		
			U-235	0 049	0 044			1 4	1 2		
			U-238	0 876	0 035			24 5	1 0	40 0	
			Pu-239/240	0 124	0 048			3 5	1 3		
			Am-241	0 155	0 047			4 3	1 3		7 8

100

Survey Unit 77922 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Wall 3	15	015 001	U-233/234	0 110	0 076	16 74	40	1 6	1 1		
			U-235	0 000	0 045			0 0	0 6		
			U-238	0 120	0 036			1 7	0 5	3 3	
			Pu-239/240	0 000	0 049			0 0	0 7		
			Am-241	0 000	0 057			0 0	0 8		0 0
Ceiling	16	016 001	U-233/234	0 139	0 031	24 15	40	2 9	0 6		
			U-235	0 000	0 039			0 0	0 8		
			U-238	0 115	0 031			2 4	0 6	5 3	
			Pu-239/240	0 407	0 048			8 5	1 0		
			Am-241	0 020	0 053			0 4	1 1		8 9
Ceiling	17	017 001	U-233/234	0 432	0 035	17 85	40	6 6	0 5		
			U-235	0 000	0 044			0 0	0 7		
			U-238	0 185	0 074			2 8	1 1	9 5	
			Pu-239/240	0 012	0 093			0 2	1 4		
			Am-241	0 057	0 052			0 9	0 8		1 1
Floor	18	018 001	U-233/234	0 514	0 071	40 32	40	17 8	2 5		
			U-235	0 046	0 042			1 6	1 5		
			U-238	1 110	0 034			38 5	1 2	57 9	
			Pu-239/240	0 200	0 049			6 9	1 7		
			Am-241	0 034	0 046			1 2	1 6		8 1
Floor	19	019 001	U-233/234	0 281	0 057	33 01	40	8 0	1 6		
			U-235	0 000	0 040			0 0	1 1		
			U-238	0 375	0 057			10 6	1 6	18 6	
			Pu-239/240	0 274	0 057			7 8	1 6		
			Am-241	0 624	0 043			17 7	1 2		25 5
Floor	20	020 001	U-233/234	0 602	0 063	42 83	40	22 2	2 3		
			U-235	0 016	0 044			0 6	1 6		
			U-238	0 736	0 036			27 1	1 3	49 9	
			Pu-239/240	0 033	0 044			1 2	1 6		
			Am-241	0 062	0 083			2 3	3 1		3 5
Wall 3	21	021 001	U-233/234	0 177	0 032	25 42	40	3 9	0 7		
			U-235	0 000	0 039			0 0	0 9		
			U-238	0 148	0 056			3 2	1 2	7 1	
			Pu-239/240	0 020	0 055			0 4	1 2		
			Am-241	0 117	0 164			2 6	3 6		3 0

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Survey Unit 77922 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) *$DCGL_W$=5000*	TRANSURANIC TOTAL ($dpm/100cm^2$) *$DCGL_W$=100*
Ceiling	22	022 001	U-233/234	0 150	0 062	14 47	40	1 9	0 8		
			U-235	0 000	0 043			0 0	0 5		
			U-238	0 085	0 062			1 1	0 8	2 9	
			Pu-239/240	0 000	0 049			0 0	0 6		
			Am-241	0 111	0 242			1 4	3 0		1 4
Ceiling	23	023 001	U-233/234	0 163	0 037	10 89	40	2 0	0 5		
			U-235	0 017	0 045			0 2	0 6		
			U-238	0 143	0 065			1 8	0 8	4 0	
			Pu-239/240	0 088	0 048			1 1	0 6		
			Am-241	-0 098	0 295			-1 2	3 7		-0 1
Ceiling	24	024 001	U-233/234	0 227	0 036	29 20	40	5 7	0 9		
			U-235	0 033	0 045			0 8	1 1		
			U-238	0 220	0 064			5 5	1 6	12 1	
			Pu-239/240	0 108	0 042			2 7	1 1		
			Am-241	0 007	0 194			0 2	4 9		2 9

MIN	**2 0**	**-0 1**
MAX	57 9	25 5
MEAN	15 7	5 3
SD	**18 5**	**6 4**
$DCGL_W$ =	**5000**	**100**

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ATTACHMENT G
Survey Unit 77923 Data Summary

SURVEY UNIT 77923 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W=}$ [redacted]

>75% and <100% of $DCGL_{W=}$ [redacted]

Greater Than or Equal to $DCGL_{W=}$ [redacted]

1012

Survey Unit 77923 Data Summary

Total Surface Activity Measurements

	15	16	
	Number Required	Number Obtained	
MIN	4 7		dpm/100 cm^2
MAX	52 1		dpm/100 cm^2
MEAN	23 9		dpm/100 cm^2
STD DEV	14 8		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	15	16	
	Number Required	Number Obtained	
MIN	-0 9		dpm/100 cm^2
MAX	2 1		dpm/100 cm^2
MEAN	-0 1		dpm/100 cm^2
STD DEV	1 0		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

Media Sample Activity

Media Samples	N/A	N/A
	Number Required	Number Obtained

Total Uranium Results

MIN	N/A	dpm/100 cm^2
MAX	N/A	dpm/100 cm^2
MEAN	N/A	dpm/100 cm^2
STD DEV	N/A	dpm/100 cm^2
DCGL$_W$	N/A	dpm/100 cm^2

Total Transuranic Results

MIN	N/A	dpm/100 cm^2
MAX	N/A	dpm/100 cm^2
MEAN	N/A	dpm/100 cm^2
STD DEV	N/A	dpm/100 cm^2
DCGL$_W$	N/A	dpm/100 cm^2

Survey Unit 77923 Building 779 Total Surface Contamination Results

Total Surface Activity Survey					
Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)	
Instrument #	1837	N/A	N/A	3 0	
Cal Due Date	2/13/00	N/A	N/A		
Efficiency (c/d)	0 211	N/A	N/A		
Total Surface Activity Measurements					
Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm²)	(dpm/100 cm²)
1	1837	10/18/99	14 0	40	52 1
2	1837	10/18/99	6 0	40	14 2
3	1837	10/18/99	6 7	40	17 5
4	1837	10/18/99	5 3	40	10 9
5	1837	10/18/99	6 7	40	17 5
6	1837	10/18/99	6 7	40	17 5
7	1837	10/18/99	12 0	40	42 6
8	1837	10/18/99	10 7	40	36 5
9	1837	10/18/99	4 0	40	4 7
10	1837	10/18/99	8 0	40	23 7
11	1837	10/18/99	9 3	40	29 8
12	1837	10/18/99	8 0	40	23 7
13	1837	10/18/99	10 0	40	33 1
14	1837	10/18/99	4 7	40	8 0
15	1837	10/18/99	12 7	40	45 9
16	1837	10/18/99	4 0	40	4 7
				MIN	4 7
				MAX	52 1
				MEAN	23 9
				SD	14 8
				Transuranic $DCGL_W$	100

Quality Control Survey				
NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)	
2349	N/A	N/A	3 7	
12/24/99	N/A	N/A		
0 217	N/A	N/A		
Quality Control Measurements				
Serial #	Date	(cpm)	MDA (dpm/100 cm²)	(dpm/100 cm²)
2349	10/18/99	9 3	42	25 8
2349	10/18/99	7 3	42	16 6

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Survey Unit 77923 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	814	10/18/99	0 5	0 6	8 3
2	814	10/18/99	0 0	-0 9	8 3
3	814	10/18/99	0 0	-0 9	8 3
4	814	10/18/99	0 5	0 6	8 3
5	814	10/18/99	1 0	2 1	8 3
6	814	10/18/99	0 5	0 6	8 3
7	814	10/18/99	0 0	-0 9	8 3
8	814	10/18/99	0 0	-0 9	8 3
9	814	10/18/99	0 5	0 6	8 3
10	814	10/18/99	0 0	-0 9	8 3
11	814	10/18/99	0 0	-0 9	8 3
12	814	10/18/99	0 5	0 6	8 3
13	814	10/18/99	0 5	0 6	8 3
14	814	10/18/99	0 0	-0 9	8 3
15	814	10/18/99	0 5	0 6	8 3
16	814	10/18/99	0 0	-0 9	8 3
			MIN	-0 9	
			MAX	2 1	
			MEAN	-0 1	
			SD	1 0	
			Transuranic $DCGL_W$	**20**	

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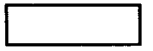
ATTACHMENT H
Survey Unit 77924 Data Summary

SURVEY UNIT 77924 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W=}$ 

>75% and <100% of $DCGL_{W=}$ 

Greater Than or Equal to $DCGL_{W=}$ 

Survey Unit 77924 Data Summary

Total Surface Activity Measurements

	15	15	
	Number Required	Number Obtained	
MIN	-0 9		dpm/100 cm^2
MAX	45 1		dpm/100 cm^2
MEAN	19 1		dpm/100 cm^2
STD DEV	14 8		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	15	15	
	Number Required	Number Obtained	
MIN	-0 9		dpm/100 cm^2
MAX	2 1		dpm/100 cm^2
MEAN	-0 1		dpm/100 cm^2
STD DEV	1 0		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

Media Sample Activity

Media Samples	N/A	N/A
	Number Required	Number Obtained

Total Uranium Results

MIN	N/A	dpm/100 cm^2
MAX	N/A	dpm/100 cm^2
MEAN	N/A	dpm/100 cm^2
STD DEV	N/A	dpm/100 cm^2
DCGL$_W$	N/A	dpm/100 cm^2

Total Transuranic Results

MIN	N/A	dpm/100 cm^2
MAX	N/A	dpm/100 cm^2
MEAN	N/A	dpm/100 cm^2
STD DEV	N/A	dpm/100 cm^2
DCGL$_W$	N/A	dpm/100 cm^2

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Survey Unit 77924 Building 779 Total Surface Contamination Results

Total Surface Activity Survey						Quality Control Survey				
Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)		NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)	
Instrument #	2349	N/A	N/A	2 2		1837	N/A	N/A	3 1	
Cal Due Date	12/24/99	N/A	N/A			2/13/00	N/A	N/A		
Efficiency (c/d)	0 217	N/A	N/A			0 211	N/A	N/A		
Total Surface Activity Measurements						**Quality Control Measurements**				
Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1	2349	10/18/99	4 7	34	11 5					
2	2349	10/18/99	3 3	34	5 1					
3	2349	10/18/99	11 3	34	41 9	1837	10/18/99	10 0	40	32 7
4	2349	10/18/99	8 0	34	26 7					
5	2349	10/18/99	5 3	34	14 3					
6	2349	10/18/99	6 7	34	20 7					
7	2349	10/18/99	11 3	34	41 9					
8	2349	10/18/99	8 7	34	29 9					
9	2349	10/18/99	12 0	34	45 1	1837	10/18/99	12 3	40	43 6
10	2349	10/18/99	6 0	34	17 5					
11	2349	10/18/99	2 0	34	0 9					
12	2349	10/18/99	4 0	34	8 3					
13	2349	10/18/99	4 0	34	8 3					
14	2349	10/18/99	4 7	34	11 5					
15	2349	10/18/99	3 3	34	5 1					
				MIN	-0 9					
				MAX	45 1					
				MEAN	19 1					
				SD	14 8					
				Transuranic DCGL$_W$	100					

Survey Unit 77924 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	814	10/18/99	0 0	-0 9	8 3
2	814	10/18/99	0 0	-0 9	8 3
3	814	10/18/99	0 5	0 6	8 3
4	814	10/18/99	0 5	0 6	8 3
5	814	10/18/99	0 0	-0 9	8 3
6	814	10/18/99	0 0	-0 9	8 3
7	814	10/18/99	0 5	0 6	8 3
8	814	10/18/99	0 0	-0 9	8 3
9	814	10/18/99	0 5	0 6	8 3
10	814	10/18/99	0 0	-0 9	8 3
11	814	10/18/99	1 0	2 1	8 3
12	814	10/18/99	0 0	-0 9	8 3
13	814	10/18/99	0 5	0 6	8 3
14	814	10/18/99	0 5	0 6	8 3
15	814	10/18/99	0 0	-0 9	8 3
			MIN	-0 9	
			MAX	2 1	
			MEAN	-0 1	
			SD	1 0	
			Transuranic $DCGL_W$	**20**	

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ATTACHMENT I
Survey Unit 77925 Data Summary

SURVEY UNIT 77925 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W=}$ [redacted]

>75% and <100% of $DCGL_{W=}$ [redacted]

Greater Than or Equal to $DCGL_{W=}$ [redacted]

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Survey Unit 77925 Data Summary

Total Surface Activity Measurements

30	30
Number Required	Number Obtained

MIN	2 8	dpm/100 cm^2
MAX	65 0	dpm/100 cm^2
MEAN	22 2	dpm/100 cm^2
STD DEV	15 9	dpm/100 cm^2
TRANSURANIC DCGL$_W$	100	dpm/100 cm^2

Removable Activity Measurements

30	30
Number Required	Number Obtained

MIN	-1 5	dpm/100 cm^2
MAX	1 2	dpm/100 cm^2
MEAN	-0 4	dpm/100 cm^2
STD DEV	0 8	dpm/100 cm^2
TRANSURANIC DCGL$_W$	20	dpm/100 cm^2

Media Sample Activity

Media Samples	N/A	N/A
	Number Required	Number Obtained

Total Uranium Results

MIN	N/A	dpm/100 cm^2
MAX	N/A	dpm/100 cm^2
MEAN	N/A	dpm/100 cm^2
STD DEV	N/A	dpm/100 cm^2
DCGL$_W$	N/A	dpm/100 cm^2

Total Transuranic Results

MIN	N/A	dpm/100 cm^2
MAX	N/A	dpm/100 cm^2
MEAN	N/A	dpm/100 cm^2
STD DEV	N/A	dpm/100 cm^2
DCGL$_W$	N/A	dpm/100 cm^2

(15

Survey Unit 77925 Building 779 Total Surface Contamination Results

Total Surface Activity Survey						Quality Control Survey				
Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)		NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)	
Instrument #	1262	N/A	N/A	4 7		2376	N/A	N/A	4 3	
Cal Due Date	12/9/99	N/A	N/A			3/23/00	N/A	N/A		
Efficiency (c/d)	0 215	N/A	N/A			0 206	N/A	N/A		
Total Surface Activity Measurements						**Quality Control Measurements**				
Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1	1262	10/21/99	7 3	47	12 1					
2	1262	10/21/99	15 3	47	49 2	2376	10/22/99	14 0	47	47 0
3	1262	10/21/99	15 3	47	49 2					
4	1262	10/21/99	12 0	47	33 9					
5	1262	10/21/99	7 3	47	12 1					
6	1262	10/21/99	7 3	47	12 1					
7	1262	10/21/99	12 0	47	33 9					
8	1262	10/21/99	6 7	47	9 3					
9	1262	10/21/99	9 3	47	21 4					
10	1262	10/21/99	12 0	47	33 9					
11	1262	10/21/99	6 0	47	6 0					
12	1262	10/21/99	12 7	47	37 1					
13	1262	10/21/99	7 3	47	12 1					
14	1262	10/21/99	6 7	47	9 3					
15	1262	10/21/99	18 7	47	65 0	2376	10/22/99	15 3	47	53 3
16	1262	10/21/99	11 3	47	30 6					
17	1262	10/21/99	6 0	47	6 0					
18	1262	10/21/99	5 3	47	2 8					
19	1262	10/21/99	8 0	47	15 3					
20	1262	10/21/99	8 7	47	18 6					
21	1262	10/21/99	8 7	47	18 6					
22	1262	10/21/99	5 3	47	2 8					
23	1262	10/21/99	13 3	47	39 9					
24	1262	10/21/99	8 0	47	15 3					
25	1262	10/21/99	8 7	47	18 6					
26	1262	10/21/99	10 0	47	24 6					
27	1262	10/21/99	6 7	47	9 3					
28	1262	10/21/99	5 3	47	2 8					
29	1262	10/21/99	10 0	47	24 6					
30	1262	10/21/99	13 3	47	39 9					
				MIN	2 8					
				MAX	65 0					
				MEAN	22 2					
				SD	15 9					
				Transuranic DCGL$_W$	100					

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Survey Unit 77925 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	814	10/21/99	0 5	0 0	9 6
2	814	10/21/99	0 0	-1 5	9 6
3	1407	10/21/99	0 0	-0 3	6 5
4	814	10/21/99	0 5	0 0	9 6
5	814	10/21/99	0 0	-1 5	9 6
6	814	10/21/99	0 0	-1 5	9 6
7	1407	10/21/99	0 5	1 2	6 5
8	814	10/21/99	0 0	-1 5	9 6
9	1407	10/21/99	0 5	0 0	6 5
10	814	10/21/99	0 0	-1 5	9 6
11	1407	10/21/99	0 5	1 2	6 5
12	814	10/21/99	0 0	-1 5	9 6
13	1407	10/21/99	0 0	-0 3	6 5
14	1407	10/21/99	0 0	-0 3	6 5
15	1407	10/21/99	0 0	-0 3	6 5
16	814	10/21/99	0 5	0 0	9 6
17	1407	10/21/99	0 0	-0 3	6 5
18	814	10/21/99	0 5	0 0	9 6
19	814	10/21/99	0 5	0 0	9 6
20	814	10/21/99	0 0	-1 5	9 6
21	1407	10/21/99	0 0	-0 3	6 5
22	1407	10/21/99	0 0	-0 3	6 5
23	1407	10/21/99	0 5	1 2	6 5
24	814	10/21/99	0 0	-1 5	9 6
25	1407	10/21/99	0 0	-0 3	6 5
26	814	10/21/99	0 5	0 0	9 6
27	814	10/21/99	0 0	-1 5	9 6
28	1407	10/21/99	0 0	-0 3	6 5
29	1407	10/21/99	0 0	-0 3	6 5
30	1407	10/21/99	0 0	-0 3	9 6
			MIN	-1 5	
			MAX	1 2	
			MEAN	-0 4	
			SD	0 8	
			Transuranic DCGL$_W$	**20**	

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ATTACHMENT J
Survey Unit 77926 Data Summary

SURVEY UNIT 77926 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W=}$ [redacted]

>75% and <100% of $DCGL_{W=}$

Greater Than or Equal to $DCGL_{W=}$ [redacted]

119

Survey Unit 77926 Data Summary

Total Surface Activity Measurements

28	28
Number Required	Number Obtained

MIN	-2 7	dpm/100 cm^2
MAX	39 3	dpm/100 cm^2
MEAN	14 3	dpm/100 cm^2
STD DEV	12 0	dpm/100 cm^2
TRANSURANIC DCGL$_W$	100	dpm/100 cm^2

Removable Activity Measurements

28	28
Number Required	Number Obtained

MIN	-0 9	dpm/100 cm^2
MAX	4 2	dpm/100 cm^2
MEAN	0 1	dpm/100 cm^2
STD DEV	1 3	dpm/100 cm^2
TRANSURANIC DCGL$_W$	20	dpm/100 cm^2

Media Sample Activity

Media Samples	N/A	N/A
	Number Required	Number Obtained

Total Uranium Results

MIN	N/A	dpm/100 cm^2
MAX	N/A	dpm/100 cm^2
MEAN	N/A	dpm/100 cm^2
STD DEV	N/A	dpm/100 cm^2
DCGL$_W$	N/A	dpm/100 cm^2

Total Transuranic Results

MIN	N/A	dpm/100 cm^2
MAX	N/A	dpm/100 cm^2
MEAN	N/A	dpm/100 cm^2
STD DEV	N/A	dpm/100 cm^2
DCGL$_W$	N/A	dpm/100 cm^2

120

Survey Unit 77926 Building 779 Total Surface Contamination Results

Total Surface Activity Survey					
Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)	
Instrument #	1265	1375	2349	3 9	
Cal Due Date	3/20/00	12/8/99	12/24/99		
Efficiency (c/d)	0 215	0 219	0 224		
Total Surface Activity Measurements					
Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1	1265	09/16/99	7 3	43	15 8
2	1265	09/16/99	4 0	43	0 5
3	1265	09/16/99	4 7	43	3 7
4	1265	09/16/99	5 3	43	6 5
5	1265	09/16/99	6 0	43	9 8
6	1265	09/16/99	7 3	43	15 8
7	1265	09/16/99	4 0	43	0 5
8	1265	09/16/99	5 3	43	6 5
9	1265	09/16/99	7 3	43	15 8
10					
11	1375	09/01/99	12 0	42	37 0
12	1375	09/01/99	5 3	42	6 4
13	1375	09/01/99	8 0	42	18 7
14	1375	09/01/99	11 3	42	33 8
15	2349	09/01/99	12 7	42	39 3
16	2349	09/01/99	6 7	42	12 5
17	2349	09/01/99	9 3	42	24 1
18	1375	09/01/99	8 0	42	18 7
19	2349	09/01/99	5 3	42	6 3
20	2349	09/01/99	8 7	42	21 5
21	1375	09/01/99	6 0	42	9 6
22	1375	09/01/99	3 3	42	2 7
23	2349	09/01/99	5 3	42	6 3
24	2349	09/01/99	4 7	42	3 6
25	2349	09/01/99	6 7	42	12 5
26	1375	09/01/99	4 7	42	3 6
27	1375	09/01/99	10 7	42	31 0
28	2349	09/01/99	12 0	42	36 2
29	2349	09/01/99	5 3	42	6 3
				MIN	2 7
				MAX	39 3
				MEAN	14 3
				SD	12 0
				Transuranic DCGL$_W$	**100**

Quality Control Survey			
NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
2384	N/A	N/A	1 0
2/29/00	N/A	N/A	
0 220	N/A	N/A	

Quality Control Measurements				
Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
2384	10/15/99	7 3	26	28 7
2384	10/15/99	6 0	26	22 8

Note Sample location number 10 was removed prior to survey

121

Survey Unit 77926 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	814	10/15/99	10	21	83
2	814	10/15/99	05	06	83
3	814	10/15/99	00	-09	83
4	814	10/15/99	00	09	83
5	814	10/15/99	00	-09	83
6	814	10/15/99	00	-09	83
7	814	10/15/99	05	06	83
8	814	10/15/99	00	-09	83
9	814	10/15/99	00	-09	83
11	814	9/1/99	00	-03	65
12	814	9/1/99	00	03	65
13	1407	9/1/99	10	24	75
14	1407	9/1/99	00	-06	75
15	1407	9/1/99	00	-06	75
16	814	9/1/99	00	-03	65
17	1407	9/1/99	00	-06	75
18	814	9/1/99	15	42	65
19	1407	9/1/99	00	-06	75
20	814	9/1/99	00	-03	65
21	814	9/1/99	10	27	65
22	1407	9/1/99	00	-06	75
23	814	9/1/99	00	-03	65
24	1407	9/1/99	00	-06	75
25	1407	9/1/99	00	-06	75
26	814	9/1/99	00	-03	65
27	814	9/1/99	05	12	65
28	1407	9/1/99	00	06	75
29	814	9/1/99	00	03	65
			MIN	-09	
			MAX	42	
			MEAN	01	
			SD	13	
			Transuranic $DCGL_W$	**20**	

Note Sample location number 10 was removed prior to survey

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ATTACHMENT K
Survey Unit 77927 Data Summary

SURVEY UNIT 77927 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W=}$	
>75% and <100% of $DCGL_{W=}$	
Greater Than or Equal to $DCGL_{W=}$	

Survey Unit 77927 Data Summary

Total Surface Activity Measurements

	15	23	
	Number Required	Number Obtained	
MIN	-9 0		dpm/100 cm^2
MAX	61 4		dpm/100 cm^2
MEAN	10 6		dpm/100 cm^2
STD DEV	16 6		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	15	23	
	Number Required	Number Obtained	
MIN	-0 6		dpm/100 cm^2
MAX	2 4		dpm/100 cm^2
MEAN	0 4		dpm/100 cm^2
STD DEV	1 3		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

Media Sample Activity

Media Samples	15	15
	Number Required	Number Obtained

Total Uranium Results

MIN	4 2	dpm/100 cm^2
MAX	72 0	dpm/100 cm^2
MEAN	27 3	dpm/100 cm^2
STD DEV	25 5	dpm/100 cm^2
DCGL$_W$	5000	dpm/100 cm^2

Total Transuranic Results

MIN	0 0	dpm/100 cm^2
MAX	13 9	dpm/100 cm^2
MEAN	3 7	dpm/100 cm^2
STD DEV	4 4	dpm/100 cm^2
DCGL$_W$	100	dpm/100 cm^2

125

Survey Unit 77927 Building 779 Total Surface Contamination Results

Total Surface Activity Survey						Quality Control Survey				
Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)		NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)	
Instrument #	1194	N/A	N/A	37		2384	N/A	N/A	17	
Cal Due Date	10/22/99	N/A	N/A			2/29/00	N/A	N/A		
Efficiency (c/d)	0 221	N/A	N/A			0 220	N/A	N/A		
Total Surface Activity Measurements						**Quality Control Measurements**				
Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1	1194	08/25/99	153	41	52 4					
2	1194	08/25/99	60	41	10 4					
3	1194	08/25/99	33	41	1 8					
4	1194	08/25/99	53	41	7 2					
5	1194	08/25/99	93	41	25 3	2384	10/19/99	60	31	19 6
6	1194	08/25/99	47	41	4 5					
7	1194	08/25/99	67	41	13 6					
8	1194	08/25/99	17	41	9 0					
9	1194	08/25/99	73	41	16 3	2384	10/19/99	60	31	19 6
10	1194	08/25/99	27	41	4 5					
11	1194	08/25/99	47	41	4 5					
12	1194	08/25/99	27	41	4 5					
13	1194	08/25/99	27	41	4 5					
14	1194	08/25/99	47	41	4 5					
15	1194	08/25/99	60	41	10 4					
16	1194	08/25/99	47	41	4 5					
17	1194	08/25/99	47	41	4 5					
18	1194	08/25/99	173	41	61 4					
19	1194	08/25/99	60	41	10 4					
20	1194	08/25/99	67	41	13 6					
21	1194	08/25/99	47	41	4 5					
22	1194	08/25/99	67	41	13 6					
23	1194	08/25/99	53	41	7 2					
				MIN	9 0					
				MAX	61 4					
				MEAN	10 6					
				SD	16 6					
				Transuranic DCGL$_w$	100					

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Survey Unit 77927 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	814	8/26/99	0 0	-0 6	7 5
2	1407	8/26/99	0 5	0 9	7 5
3	814	8/26/99	0 0	-0 6	7 5
4	1407	8/26/99	0 0	-0 6	7 5
5	814	8/26/99	1 0	2 4	7 5
6	1407	8/26/99	0 0	-0 6	7 5
7	814	8/26/99	1 0	2 4	7 5
8	1407	8/26/99	0 0	-0 6	7 5
9	814	8/26/99	0 0	-0 6	7 5
10	1407	8/26/99	0 0	-0 6	7 5
11	814	8/26/99	1 0	2 4	7 5
12	1407	8/26/99	0 0	-0 6	7 5
13	814	8/26/99	0 0	-0 6	7 5
14	1407	8/26/99	0 0	-0 6	7 5
15	814	8/26/99	1 0	2 4	7 5
16	1407	8/26/99	0 0	-0 6	7 5
17	814	8/26/99	1 0	2 4	7 5
18	1407	8/26/99	0 0	-0 6	7 5
19	814	8/26/99	0 0	-0 6	7 5
20	1407	8/26/99	0 0	-0 6	7 5
21	814	8/26/99	1 0	2 4	7 5
22	1407	8/26/99	0 5	0 9	7 5
23	814	8/26/99	0 5	0 9	7 5
			MIN	-0 6	
			MAX	2 4	
			MEAN	0 4	
			SD	1 3	
			Transuranic $DCGL_W$	**20**	

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Survey Unit 77927 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Room 163, Wall 8	1	001 001	U-233/234	0 966	0 036	2 82	40	2 3	0 1		
			U-235	-0 007	0 078			0 0	0 2		
			U-238	0 764	0 036			1 9	0 1	4 2	
			Pu-239/240	0 030	0 076			0 1	0 2		
			Am-241	0 010	0 082			0 0	0 2		0 1
Room 163, Wall 2	2	002 001	U-233/234	0 600	0 036	37 14	40	19 2	1 2		
			U-235	0 016	0 045			0 5	1 4		
			U-238	0 565	0 064			18 1	2 0	37 7	
			Pu-239/240	0 020	0 093			0 6	3 0		
			Am-241	0 067	0 045			2 1	1 4		2 8
Room 161, Wall 3	3	003 001	U-233/234	0 800	0 039	53 88	40	37 1	1 8		
			U-235	0 036	0 049			1 7	2 3		
			U-238	0 718	0 069			33 3	3 2	72 0	
			Pu-239/240	0 048	0 085			2 2	3 9		
			Am-241	0 019	0 050			0 9	2 3		3 1
Room 161, Wall 2	4	004 001	U-233/234	0 816	0 067	51 10	40	35 9	2 9		
			U-235	0 034	0 047			1 5	2 1		
			U-238	0 715	0 066			31 4	2 9	68 8	
			Pu-239/240	0 031	0 081			1 4	3 6		
			Am-241	0 017	0 047			0 7	2 1		2 1
Room 159, Ceiling	5	005 001	U-233/234	0 174	0 061	18 86	40	2 8	1 0		
			U-235	0 035	0 048			0 6	0 8		
			U-238	0 199	0 039			3 2	0 6	6 6	
			Pu-239/240	0 058	0 077			0 9	1 2		
			Am-241	0 318	0 048			5 2	0 8		6 1
Room 159, Ceiling	6	006 001	U-233/234	0 132	0 036	36 36	40	4 1	1 1		
			U-235	0 016	0 044			0 5	1 4		
			U-238	0 184	0 036			5 8	1 1	10 4	
			Pu-239/240	0 064	0 044			2 0	1 4		
			Am-241	0 000	0 054			0 0	1 7		2 0

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Survey Unit 77927 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Room 159, Ceiling	8	008 001	U-233/234	0 225	0 061	11 99	40	2 3	0 6		
			U-235	0 032	0 043			0 3	0 4		
			U-238	0 148	0 061			1 5	0 6	4 2	
			Pu-239/240	0 026	0 077			0 3	0 8		
			Am-241	0 018	0 049			0 2	0 5		0 5
Room 159, Wall 1	9	009 001	U-233/234	0 081	0 058	24 90	40	1 7	1 2		
			U-235	0 030	0 041			0 6	0 9		
			U-238	0 153	0 058			3 3	1 2	5 7	
			Pu-239/240	0 229	0 098			4 9	2 1		
			Am-241	0 418	0 071			9 0	1 5		13 9
Room 159, Ceiling	11	011 001	U-233/234	0 133	0 057	16 75	40	1 9	0 8		
			U-235	0 017	0 046			0 2	0 7		
			U-238	0 216	0 066			3 1	1 0	5 3	
			Pu-239/240	0 000	0 042			0 0	0 6		
			Am-241	0 000	0 047			0 0	0 7		0 0
Room 159, Ceiling	12	012 001	U-233/234	0 154	0 035	33 72	40	4 5	1 0		
			U-235	0 032	0 043			0 9	1 2		
			U-238	0 110	0 061			3 2	1 8	8 6	
			Pu-239/240	0 275	0 093			8 0	2 7		
			Am-241	0 102	0 092			3 0	2 7		10 9
Room 159, Wall 1	13	013 001	U-233/234	0 321	0 075	41 97	40	11 6	2 7		
			U-235	0 096	0 052			3 5	1 9		
			U-238	0 233	0 042			8 4	1 5	23 5	
			Pu-239/240	0 000	0 044			0 0	1 6		
			Am-241	0 011	0 085			0 4	3 1		0 4

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Survey Unit 77927 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Room 163, Wall 1	20	020 001	U-233/234	0 533	0 035	61 12	40	28 0	1 8		
			U-235	0 112	0 043			5 9	2 3		
			U-238	0 557	0 035			29 3	1 8	63 2	
			Pu-239/240	0 003	0 082			0 2	4 3		
			Am-241	0 016	0 044			0 8	2 3		1 0
Room 163, Wall 9	21	021 001	U-233/234	0 554	0 033	28 25	40	13 5	0 8		
			U-235	0 046	0 041			1 1	1 0		
			U-238	0 480	0 069			11 7	1 7	26 2	
			Pu-239/240	0 064	0 043			1 6	1 0		
			Am-241	0 019	0 051			0 5	1 2		2 0

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Survey Unit 77927 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_w$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_w$=100
Room 163, Wall 7	22	022 001	U-233/234	0 095	0 037	52 15	40	4 3	1 7		
			U-235	0 000	0 045			0 0	2 0		
			U-238	0 305	0 065			13 7	2 9	17 9	
			Pu-239/240	0 069	0 155			3 1	7 0		
			Am-241	0 144	0 098			6 5	4 4		9 6
Room 163, Wall 3	23	023 001	U-233/234	0 538	0 067	50 88	40	23 5	2 9		
			U-235	0 059	0 040			2 6	1 8		
			U-238	0 663	0 032			29 0	1 4	55 1	
			Pu-239/240	0 013	0 099			0 6	4 3		
			Am-241	0 016	0 043			0 7	1 9		1 3

Note Surface media for locations 7, 10, and 14-19 was removed prior to survey

MIN	**4 2**	**0 0**
MAX	72 0	13 9
MEAN	27 3	3 7
SD	**25 5**	**4 4**
$DCGL_W$ =	**5000**	**100**

ATTACHMENT L
Survey Unit 77928 Data Summary

SURVEY UNIT 77928 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W=}$ [redacted]

>75% and <100% of $DCGL_{W=}$

Greater Than or Equal to $DCGL_{W=}$ [redacted]

Survey Unit 77928 Data Summary

Total Surface Activity Measurements

	15	24	
	Number Required	Number Obtained	
MIN	-8 2		dpm/100 cm^2
MAX	40 0		dpm/100 cm^2
MEAN	8 9		dpm/100 cm^2
STD DEV	9 8		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	15	24	
	Number Required	Number Obtained	
MIN	0 0		dpm/100 cm^2
MAX	1 5		dpm/100 cm^2
MEAN	0 4		dpm/100 cm^2
STD DEV	0 7		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

Media Sample Activity

Media Samples	15	15
	Number Required	Number Obtained

Total Uranium Results

MIN	0 3	dpm/100 cm^2
MAX	323 2	dpm/100 cm^2
MEAN	84 4	dpm/100 cm^2
STD DEV	101 7	dpm/100 cm^2
DCGL$_W$	5000	dpm/100 cm^2

Total Transuranic Results

MIN	0 0	dpm/100 cm^2
MAX	5 8	dpm/100 cm^2
MEAN	2 2	dpm/100 cm^2
STD DEV	2 1	dpm/100 cm^2
DCGL$_W$	100	dpm/100 cm^2

Survey Unit 77928 Building 779 Total Surface Contamination Results

Total Surface Activity Survey						Quality Control Survey				
Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)		NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)	
Instrument #	2358	2379	N/A	25		1370	N/A	N/A	37	
Cal Due Date	1/19/00	2/27/00	N/A			10/8/99	N/A	N/A		
Efficiency (c/d)	0 220	0 210	N/A			0 222	N/A	N/A		
	Total Surface Activity Measurements					Quality Control Measurements				
Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1	2358	08/14/99	47	36	10 0					
2	2358	08/14/99	27	38	0 0					
3	2358	08/14/99	33	36	3 6					
4	2358	08/14/99	47	36	10 0					
5	2358	08/14/99	53	36	12 7					
6	2358	08/14/99	53	36	12 7					
7	2358	08/14/99	33	36	3 6					
8	2358	08/14/99	27	36	0 9					
9	2358	08/14/99	53	36	12 7					
10	2358	08/14/99	113	36	40 0	1370	08/16/99	47	41	45
11	2358	08/14/99	40	36	6 8					
12	2358	08/14/99	33	36	3 6					
13	2358	08/14/99	07	36	8 2					
14	2358	08/14/99	53	36	12 7					
15	2358	08/14/99	33	36	3 6	1370	08/16/99	33	41	1 8
16	2358	08/14/99	80	36	25 0					
17	2358	08/14/99	33	36	3 6					
18	2358	08/14/99	33	36	3 6					
19	2358	08/14/99	47	36	10 0					
20	2358	08/14/99	73	36	21 8					
21	2358	08/14/99	40	36	6 8					
22	2358	08/14/99	20	36	2 3					
23	2358	08/14/99	53	36	12 7					
24	2358	08/14/99	40	36	6 8					
				MIN	-8 2					
				MAX	40 0					
				MEAN	8 9					
				SD	9 8					
				Transuranic DCGL$_W$	100					

* Note Local Area Background = 2 7 cpm for location #2

Survey Unit 77928 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	1160	8/16/99	0 0	0 0	4 1
2	814	9/2/99	0 5	1 5	7 5
3	1160	8/16/99	0 5	1 5	4 1
4	1160	8/16/99	0 0	0 0	4 1
5	1160	8/16/99	0 0	0 0	4 1
6	1160	8/16/99	0 5	1 5	4 1
7	1160	8/16/99	0 0	0 0	4 1
8	1160	8/16/99	0 0	0 0	4 1
9	1160	8/16/99	0 5	1 5	4 1
10	1160	8/16/99	0 0	0 0	4 1
11	1160	8/16/99	0 5	1 5	4 1
12	1160	8/16/99	0 0	0 0	4 1
13	1160	8/16/99	0 0	0 0	4 1
14	1160	8/16/99	0 0	0 0	4 1
15	1160	8/16/99	0 0	0 0	4 1
16	1160	8/16/99	0 0	0 0	4 1
17	1160	8/16/99	0 0	0 0	4 1
18	1160	8/16/99	0 0	0 0	4 1
19	1160	8/16/99	0 5	1 5	4 1
20	1160	8/16/99	0 0	0 0	4 1
21	1160	8/16/99	0 0	0 0	4 1
22	1160	8/16/99	0 0	0 0	4 1
23	1160	8/16/99	0 0	0 0	4 1
24	1160	8/16/99	0 0	0 0	4 1
			MIN	0 0	
			MAX	1 5	
			MEAN	0 4	
			SD	0 7	
			Transuranic $DCGL_W$	**20**	

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Survey Unit 77928 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Wall 8	1	001 001	U-233/234	0 083	0 032	15 83	40	1 1	0 4		
			U-235	0 059	0 040			0 8	0 5		
			U-238	0 078	0 057			1 1	0 8	3 0	
			Pu-239/240	-0 003	0 098			0 0	1 3		
			Am-241	0 030	0 040			0 4	0 5		0 4
Wall 8	2	002 001	U-233/234	0 935	0 035	0 15	40	0 1	0 0		
			U-235	0 032	0 043			0 0	0 0		
			U-238	1 140	0 061			0 1	0 0	0 3	
			Pu-239/240	0 143	0 088			0 0	0 0		
			Am-241	0 033	0 045			0 0	0 0		0 0
Wall 1	3	003 001	U-233/234	0 667	0 038	10 29	40	5 9	0 3		
			U-235	0 053	0 047			0 5	0 4		
			U-238	1 150	0 068			10 2	0 6	16 6	
			Pu-239/240	0 054	0 095			0 5	0 8		
			Am-241	0 173	0 094			1 5	0 8		2 0
Wall 1	4	004 001	U-233/234	0 295	0 063	18 70	40	4 7	1 0		
			U-235	0 097	0 044			1 6	0 7		
			U-238	0 320	0 062			5 1	1 0	11 5	
			Pu-239/240	0 003	0 098			0 0	1 6		
			Am-241	0 050	0 068			0 8	1 1		0 9
Floor	5	005 001	U-233/234	0 825	0 033	165 25	40	117 3	4 7		
			U-235	0 106	0 041			15 1	5 8		
			U-238	0 645	0 059			91 7	8 4	224 0	
			Pu-239/240	0 009	0 071			1 3	10 1		
			Am-241	0 015	0 039			2 1	5 5		3 4
Floor	6	006 001	U-233/234	0 645	0 067	278 27	40	154 4	16 0		
			U-235	0 029	0 040			6 9	9 6		
			U-238	0 676	0 032			161 8	7 7	323 2	
			Pu-239/240	0 023	0 069			5 5	16 5		
			Am-241	0 000	0 038			0 0	9 1		5 5
Wall 1	7	007 001	U-233/234	0 753	0 072	29 55	40	19 1	1 8		
			U-235	0 094	0 043			2 4	1 1		
			U-238	0 874	0 034			22 2	0 9	43 7	
			Pu-239/240	0 048	0 043			1 2	1 1		
			Am-241	-0 009	0 150			-0 2	3 8		1 0

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Survey Unit 77928 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Pedestals	8	008 001	U-233/234	0 654	0 035	66 31	40	37 3	2 0		
			U-235	0 065	0 044			3 7	2 5		
			U-238	0 690	0 035			39 4	2 0	80 4	
			Pu-239/240	0 000	0 042			0 0	2 4		
			Am-241	0 000	0 039			0 0	2 2		0 0
Floor	9	009 001	U-233/234	0 497	0 034	107 66	40	46 0	3 1		
			U-235	0 046	0 042			4 3	3 9		
			U-238	0 571	0 070			52 9	6 5	103 2	
			Pu-239/240	0 063	0 084			5 8	7 8		
			Am-241	0 000	0 134			0 0	12 4		5 8
Floor	10	010 001	U-233/234	0 645	0 058	215 47	40	119 6	10 8		
			U-235	0 074	0 040			13 7	7 4		
			U-238	0 695	0 032			128 8	5 9	262 1	
			Pu-239/240	0 003	0 086			0 6	15 9		
			Am-241	0 026	0 035			4 8	6 5		5 4
Wall 6	11	011 001	U-233/234	0 636	0 036	41 52	40	22 7	1 3		
			U-235	0 082	0 044			2 9	1 6		
			U-238	0 667	0 063			23 8	2 3	49 5	
			Pu-239/240	0 018	0 083			0 6	3 0		
			Am-241	0 000	0 039			0 0	1 4		0 6
Wall 6	12	012 001	U-233/234	0 574	0 075	36 21	40	17 9	2 3		
			U-235	0 115	0 044			3 6	1 4		
			U-238	0 529	0 036			16 5	1 1	37 9	
			Pu-239/240	0 023	0 069			0 7	2 1		
			Am-241	0 034	0 046			1 1	1 4		1 8
Wall 4	13	013 001	U-233/234	0 333	0 081	37 89	40	10 9	2 6		
			U-235	0 142	0 048			4 6	1 6		
			U-238	0 629	0 039			20 5	1 3	36 0	
			Pu-239/240	0 030	0 089			1 0	2 9		
			Am-241	0 018	0 049			0 6	1 6		1 6
Wall 5	14	014 001	U-233/234	0 298	0 034	32 07	40	8 2	0 9		
			U-235	0 061	0 042			1 7	1 2		
			U-238	0 284	0 034			7 8	0 9	17 7	
			Pu-239/240	0 017	0 045			0 5	1 2		
			Am-241	0 000	0 071			0 0	2 0		0 5

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Survey Unit 77928 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Wall 5	15	015 001	U-233/234	0 315	0 036	66 17	40	17 9	2 0		
			U-235	0 049	0 044			2 8	2 5		
			U-238	0 629	0 074			35 8	4 2	56 5	
			Pu-239/240	0 048	0 043			2 7	2 4		
			Am-241	0 016	0 044			0 9	2 5		3 6

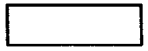
MIN	**0 3**	**0 0**
MAX	323 2	5 8
MEAN	84 4	2 2
SD	**101 7**	**2 1**
$DCGL_W$ =	**5000**	**100**

ATTACHMENT M
Survey Unit 77929 Data Summary

SURVEY UNIT 77929 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W=}$ 

>75% and <100% of $DCGL_{W=}$ 

Greater Than or Equal to $DCGL_{W=}$ 

141

Survey Unit 77929 Data Summary

Total Surface Activity Measurements

	17	21	
	Number Required	Number Obtained	
MIN	-4 5		dpm/100 cm^2
MAX	25 9		dpm/100 cm^2
MEAN	7 5		dpm/100 cm^2
STD DEV	8 4		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	17	21	
	Number Required	Number Obtained	
MIN	-0 3		dpm/100 cm^2
MAX	2 7		dpm/100 cm^2
MEAN	0 1		dpm/100 cm^2
STD DEV	0 8		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

Media Sample Activity

Media Samples	17	18
	Number Required	Number Obtained

Total Uranium Results

MIN	0 5	dpm/100 cm^2
MAX	6 1	dpm/100 cm^2
MEAN	2 0	dpm/100 cm^2
STD DEV	1 3	dpm/100 cm^2
DCGL$_W$	5000	dpm/100 cm^2

Total Transuranic Results

MIN	0 1	dpm/100 cm^2
MAX	0 9	dpm/100 cm^2
MEAN	0 4	dpm/100 cm^2
STD DEV	0 2	dpm/100 cm^2
DCGL$_W$	100	dpm/100 cm^2

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Survey Unit 77929 Building 779 Total Surface Contamination Results

Total Surface Activity Survey

Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
Instrument #	1194	2358	N/A	23
Cal Due Date	10/22/99	1/19/00	N/A	[redacted]
Efficiency (c/d)	0 221	0 220	N/A	

Quality Control Survey

NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
2349	N/A	N/A	14
12/24/99	N/A	N/A	[redacted]
0 224	N/A	N/A	

Total Surface Activity Measurements

Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1	1194	08/25/99	47	34	10 8
2	1194	08/25/99	73	34	22 6
3	2358	08/23/99	47	34	10 9
4	2358	08/23/99	13	34	4 5
5	2358	08/23/99	27	34	1 8
6	2358	08/23/99	80	34	25 9
7	2358	08/23/99	20	34	1 4
8	2358	08/23/99	40	34	7 7
9	2358	08/23/99	20	34	1 4
10	2358	08/23/99	20	34	1 4
11	2358	08/23/99	27	34	1 8
12	2358	08/23/99	27	34	1 8
13	2358	08/23/99	47	34	10 9
14	2358	08/23/99	20	34	1 4
15	2358	08/23/99	67	34	20 0
16	2358	08/23/99	47	34	10 9
17	2358	08/23/99	47	34	10 9
18	2358	08/23/99	27	34	1 8
19	1194	08/25/99	47	34	10 8
20	1194	08/25/99	47	34	10 8
21	1194	08/25/99	40	34	7 7
[redacted]				MIN	-4 5
				MAX	25 9
				MEAN	7 5
				SD	8 4
				Transuranic DCGL$_W$	100

Quality Control Measurements

Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
[redacted]				
2349	08/26/99	20	28	27
[redacted]				
2349	08/26/99	33	28	85
[redacted]				

1113

Survey Unit 77929 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	814	8/25/99	0 0	-0 3	6 5
2	814	8/25/99	0 0	-0 3	6 5
3	814	8/25/99	0 0	-0 3	6 5
4	814	8/25/99	0 5	1 2	6 5
5	814	8/25/99	0 0	-0 3	6 5
6	814	8/25/99	0 5	1 2	6 5
7	814	8/25/99	0 0	-0 3	6 5
8	814	8/25/99	0 0	-0 3	6 5
9	814	8/25/99	0 0	-0 3	6 5
10	814	8/25/99	0 0	-0 3	6 5
11	1407	8/25/99	0 0	-0 3	6 5
12	1407	8/25/99	0 0	-0 3	6 5
13	1407	8/25/99	0 0	-0 3	6 5
14	1407	8/25/99	0 0	-0 3	6 5
15	1407	8/25/99	0 0	-0 3	6 5
16	1407	8/25/99	0 5	1 2	6 5
17	1407	8/25/99	0 0	-0 3	6 5
18	1407	8/25/99	0 0	-0 3	6 5
19	1407	8/25/99	0 5	1 2	6 5
20	1407	8/25/99	1 0	2 7	6 5
21	1407	8/25/99	0 0	-0 3	6 5
			MIN	-0 3	
			MAX	2 7	
			MEAN	0 1	
			SD	0 8	
			Transuranic DCGL$_W$	**20**	

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Survey Unit 77929 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Room 166, Wall 4	1	001 001	U-233/234	0 119	0 069	7 58	40	0 8	0 4		
			U-235	0 022	0 060			0 1	0 4		
			U-238	0 093	0 067			0 6	0 4	1 5	
			Pu-239/240	-0 001	0 034			0 0	0 2		
			Am-241	0 044	0 041			0 3	0 3		0 3
Room 166, Wall 2	2	002 001	U-233/234	0 550	0 049	2 89	40	1 4	0 1		
			U-235	0 063	0 052			0 2	0 1		
			U-238	0 690	0 049			1 7	0 1	3 2	
			Pu-239/240	-0 003	0 046			0 0	0 1		
			Am-241	0 108	0 042			0 3	0 1		0 3
Room 162, Doorway	3	003 001	U-233/234	0 275	0 053	4 02	40	1 0	0 2		
			U-235	0 025	0 053			0 1	0 2		
			U-238	0 277	0 047			1 0	0 2	2 0	
			Pu-239/240	0 006	0 032			0 0	0 1		
			Am-241	0 069	0 051			0 2	0 2		0 3
Room 162, Ceiling	4	004 001	U-233/234	0 080	0 048	5 55	40	0 4	0 2		
			U-235	0 015	0 044			0 1	0 2		
			U-238	0 082	0 039			0 4	0 2	0 8	
			Pu-239/240	-0 002	0 040			0 0	0 2		
			Am-241	0 060	0 058			0 3	0 3		0 3
Room 162, Ceiling	5	005 001	U-233/234	0 094	0 047	3 33	40	0 3	0 1		
			U-235	0 012	0 043			0 0	0 1		
			U-238	0 074	0 035			0 2	0 1	0 5	
			Pu-239/240	-0 001	0 032			0 0	0 1		
			Am-241	0 041	0 047			0 1	0 1		0 1
Room 162, Ceiling	6	006 001	U-233/234	0 162	0 053	2 92	40	0 4	0 1		
			U-235	0 015	0 037			0 0	0 1		
			U-238	0 118	0 037			0 3	0 1	0 7	
			Pu-239/240	0 000	0 025			0 0	0 1		
			Am-241	0 104	0 031			0 3	0 1		0 3
Room 162, Floor	7	007 001	U-233/234	0 083	0 042	9 28	40	0 7	0 3		
			U-235	0 004	0 045			0 0	0 4		
			U-238	0 170	0 038			1 4	0 3	2 1	
			Pu-239/240	0 038	0 035			0 3	0 3		
			Am-241	0 021	0 030			0 2	0 2		0 5

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Survey Unit 77929 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Room 162, Ceiling	8	008 001	U-233/234	0 062	0 059	5 82	40	0 3	0 3		
			U-235	-0 006	0 054			0 0	0 3		
			U-238	0 122	0 041			0 6	0 2	0 9	
			Pu-239/240	0 012	0 037			0 1	0 2		
			Am-241	0 055	0 063			0 3	0 3		0 3
Room 162, Ceiling	9	009 001	U-233/234	0 062	0 056	7 56	40	0 4	0 4		
			U-235	-0 005	0 051			0 0	0 3		
			U-238	0 083	0 035			0 5	0 2	0 9	
			Pu-239/240	0 006	0 034			0 0	0 2		
			Am-241	0 108	0 080			0 7	0 5		0 7
Room 162, Floor	10	010 001	U-233/234	0 189	0 048	5 96	40	1 0	0 2		
			U-235	0 006	0 053			0 0	0 3		
			U-238	0 290	0 028			1 5	0 1	2 5	
			Pu-239/240	0 055	0 037			0 3	0 2		
			Am-241	0 114	0 037			0 6	0 2		0 9
Room 162, Floor	11	011 001	U-233/234	0 320	0 044	5 05	40	1 4	0 2		
			U-235	0 033	0 039			0 1	0 2		
			U-238	0 360	0 039			1 6	0 2	3 1	
			Pu-239/240	0 054	0 021			0 2	0 1		
			Am-241	0 082	0 069			0 4	0 3		0 6
Room 162, Ceiling	12	012 001	U-233/234	0 073	0 044	6 44	40	0 4	0 2		
			U-235	-0 002	0 044			0 0	0 2		
			U-238	0 123	0 038			0 7	0 2	1 1	
			Pu-239/240	-0 003	0 041			0 0	0 2		
			Am-241	0 044	0 042			0 2	0 2		0 2
Room 162, Ceiling	13	013 001	U-233/234	0 186	0 043	8 83	40	1 4	0 3		
			U-235	-0 003	0 054			0 0	0 4		
			U-238	0 197	0 028			1 5	0 2	2 9	
			Pu-239/240	0 007	0 036			0 1	0 3		
			Am-241	0 024	0 061			0 2	0 5		0 2
Room 162, Ceiling	14	014 001	U-233/234	0 100	0 054	7 50	40	0 6	0 3		
			U-235	0 027	0 043			0 2	0 3		
			U-238	0 075	0 028			0 5	0 2	1 3	
			Pu-239/240	-0 001	0 036			0 0	0 2		
			Am-241	0 059	0 049			0 4	0 3		0 4

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Survey Unit 77929 Building 779 Paint/Solid Media Sample Results

LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_W$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_W$=100
Room 162, Wall 1	15	015 001	U-233/234	0 350	0 063	8 34	40	2 5	0 5		
			U-235	0 037	0 047			0 3	0 3		
			U-238	0 470	0 043			3 4	0 3	6 1	
			Pu-239/240	0 018	0 040			0 1	0 3		
			Am-241	0 100	0 055			0 7	0 4		0 8
Room 162, Floor	16	016 001	U-233/234	0 116	0 056	11 35	40	1 1	0 5		
			U-235	0 016	0 058			0 2	0 6		
			U-238	0 119	0 048			1 2	0 5	2 5	
			Pu-239/240	0 013	0 031			0 1	0 3		
			Am-241	0 073	0 033			0 7	0 3		0 8
Room 162, Ceiling	17	017 001	U-233/234	0 133	0 046	8 72	40	1 0	0 3		
			U-235	0 015	0 037			0 1	0 3		
			U-238	0 128	0 024			1 0	0 2	2 1	
			Pu-239/240	0 000	0 020			0 0	0 2		
			Am-241	0 023	0 040			0 2	0 3		0 2
Room 162, Ceiling	18	018 001	U-233/234	0 105	0 059	7 50	40	0 7	0 4		
			U-235	0 019	0 047			0 1	0 3		
			U-238	0 117	0 065			0 8	0 4	1 6	
			Pu-239/240	-0 002	0 039			0 0	0 3		
			Am-241	0 069	0 067			0 4	0 4		0 4

MIN	**0 5**	**0 1**
MAX	**6 1**	**0 9**
MEAN	**2 0**	**0 4**
SD	**1 3**	**0 2**
$DCGL_W$ =	**5000**	**100**

ATTACHMENT N
Survey Unit 77949 Data Summary

SURVEY UNIT 77949 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W=}$ 

>75% and <100% of $DCGL_{W=}$ 

Greater Than or Equal to $DCGL_{W=}$ 

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Survey Unit 77949 Data Summary

Total Surface Activity Measurements

	15	20	
	Number Required	Number Obtained	
MIN	-5 6		dpm/100 cm^2
MAX	35 3		dpm/100 cm^2
MEAN	11 6		dpm/100 cm^2
STD DEV	13 3		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	15	20	
	Number Required	Number Obtained	
MIN	-0 3		dpm/100 cm^2
MAX	2 7		dpm/100 cm^2
MEAN	0 4		dpm/100 cm^2
STD DEV	1 0		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

Media Sample Activity

Media Samples	N/A	N/A
	Number Required	Number Obtained

Total Uranium Results

MIN	N/A	dpm/100 cm^2
MAX	N/A	dpm/100 cm^2
MEAN	N/A	dpm/100 cm^2
STD DEV	N/A	dpm/100 cm^2
DCGL$_W$	N/A	dpm/100 cm^2

Total Transuranic Results

MIN	N/A	dpm/100 cm^2
MAX	N/A	dpm/100 cm^2
MEAN	N/A	dpm/100 cm^2
STD DEV	N/A	dpm/100 cm^2
DCGL$_W$	N/A	dpm/100 cm^2

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Survey Unit 77949 Building 779 Total Surface Contamination Results

Total Surface Activity Survey					Quality Control Survey			
Meter Model	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)	NE Electra w/ DP6 Probe			Local Area Bkgd (cpm)
Instrument #	1265	N/A	N/A	2 5	2358	N/A	N/A	3 3
Cal Due Date	3/2/00	N/A	N/A		1/19/00	N/A	N/A	
Efficiency (c/d)	0 213	N/A	N/A		0 214	N/A	N/A	

Total Surface Activity Measurements						Quality Control Measurements				
Sample Location Number	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)	Serial #	Date	(cpm)	MDA (dpm/100 cm^2)	(dpm/100 cm^2)
1	1265	10/26/99	6 0	37	16 5					
2	1265	10/26/99	2 7	37	0 9					
3	1265	10/26/99	4 7	37	10 3					
4	1265	10/26/99	3 3	37	3 8					
5	1265	10/26/99	8 0	37	25 9					
6	1265	10/26/99	3 3	37	3 8					
7	1265	10/26/99	2 0	37	2 4					
8	1265	10/26/99	8 0	37	25 9					
9	1265	10/26/99	6 7	37	19 7					
10	1265	10/26/99	1 3	37	5 6					
11	1265	10/26/99	1 3	37	5 6					
12	1265	10/26/99	5 3	37	13 2					
13	1265	10/26/99	3 3	37	3 8					
14	1265	10/26/99	9 3	37	32 0	2358	10/26/99	9 3	41	28 1
15	1265	10/26/99	10 0	37	35 3	2358	10/26/99	13 3	41	46 8
16	1265	10/26/99	7 3	37	22 6					
17	1265	10/26/99	2 0	37	2 4					
18	1265	10/26/99	8 7	37	29 1					
19	1265	10/26/99	3 3	37	3 8					
20	1265	10/26/99	2 7	37	0 9					
				MIN	5 6					
				MAX	35 3					
				MEAN	11 6					
				SD	13 3					
				Transuranic DCGL$_W$	***100***					

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Survey Unit 77949 Building 779 Smear Results

Smear Location Number	Smear Results				
	Serial Number	Date Counted	Gross (cpm)	(dpm/100 cm^2)	MDA
1	814	10/26/99	0 5	1 2	6 5
2	1407	10/26/99	0 0	-0 3	6 5
3	814	10/26/99	0 0	-0 3	6 5
4	1407	10/26/99	0 0	-0 3	6 5
5	814	10/26/99	0 0	-0 3	6 5
6	1407	10/26/99	0 5	1 2	6 5
7	814	10/26/99	0 0	-0 3	6 5
8	1407	10/26/99	0 0	-0 3	6 5
9	814	10/26/99	0 0	-0 3	6 5
10	1407	10/26/99	0 0	-0 3	6 5
11	814	10/26/99	0 5	1 2	6 5
12	1407	10/26/99	0 5	1 2	6 5
13	814	10/26/99	0 0	-0 3	6 5
14	1407	10/26/99	0 5	1 2	6 5
15	814	10/26/99	0 0	-0 3	6 5
16	1407	10/26/99	0 0	-0 3	6 5
17	814	10/26/99	0 0	-0 3	6 5
18	1407	10/26/99	1 0	2 7	6 5
19	814	10/26/99	0 0	-0 3	6 5
20	1407	10/26/99	1 0	2 7	6 5
			MIN	-0 3	
			MAX	2 7	
			MEAN	0 4	
			SD	1 0	
			Transuranic $DCGL_W$	**20**	

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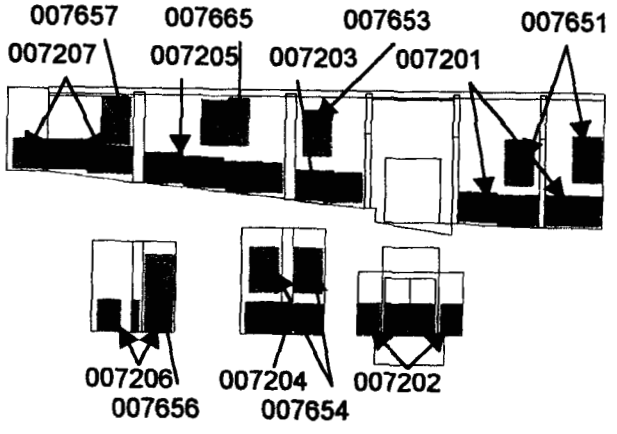
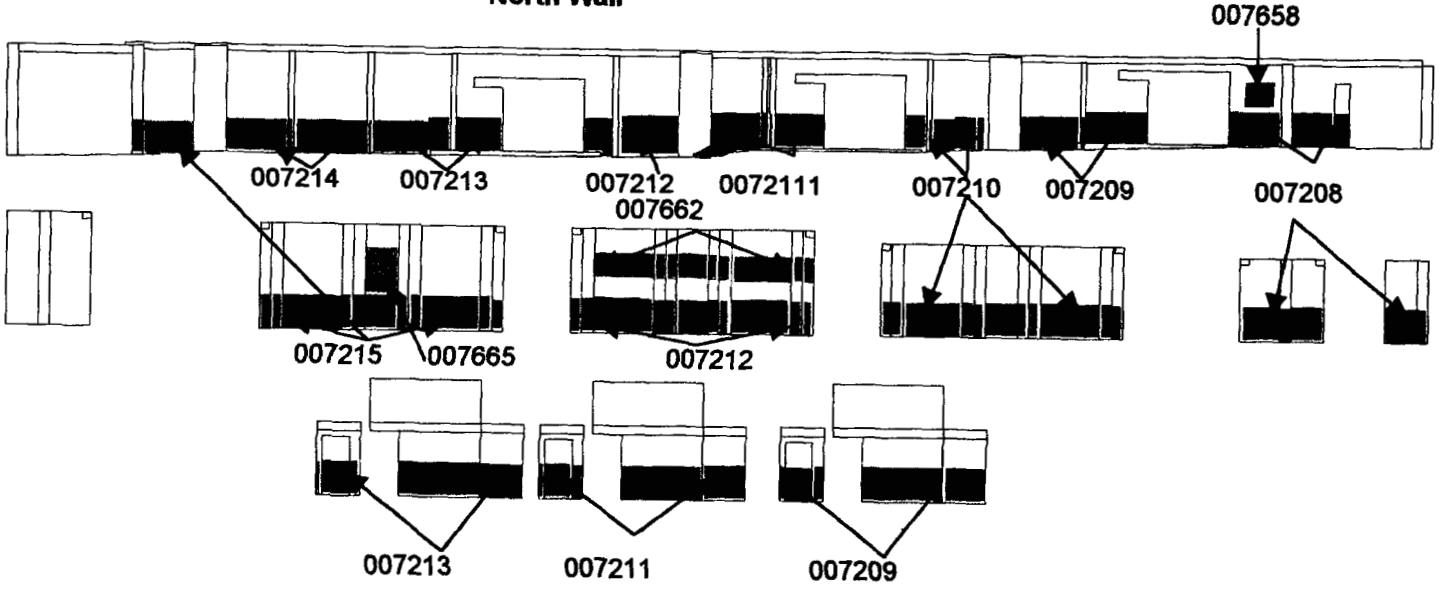
ATTACHMENT O
Survey Unit Overlay Maps

Survey Unit 77907
B779 Exterior walls
Map 1 of 1

West Wall

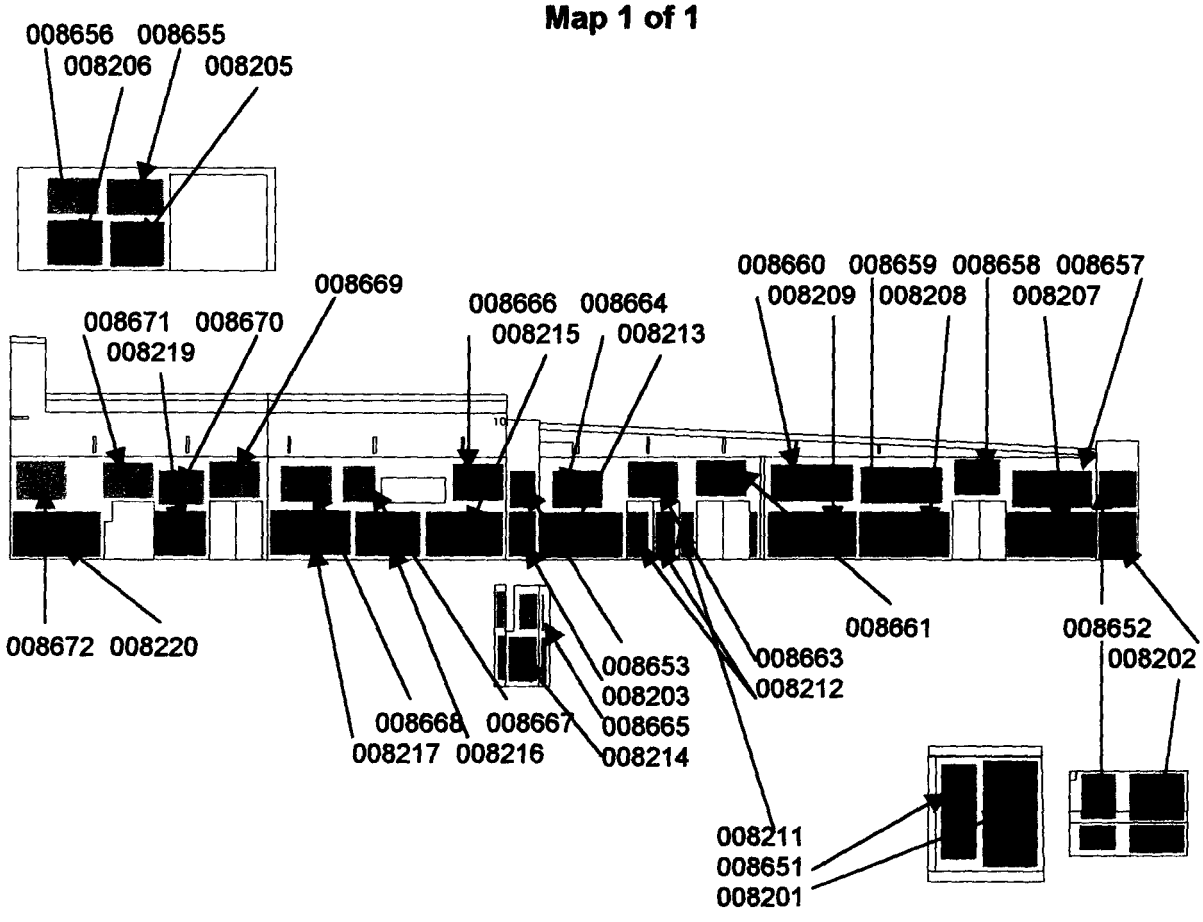


North Wall

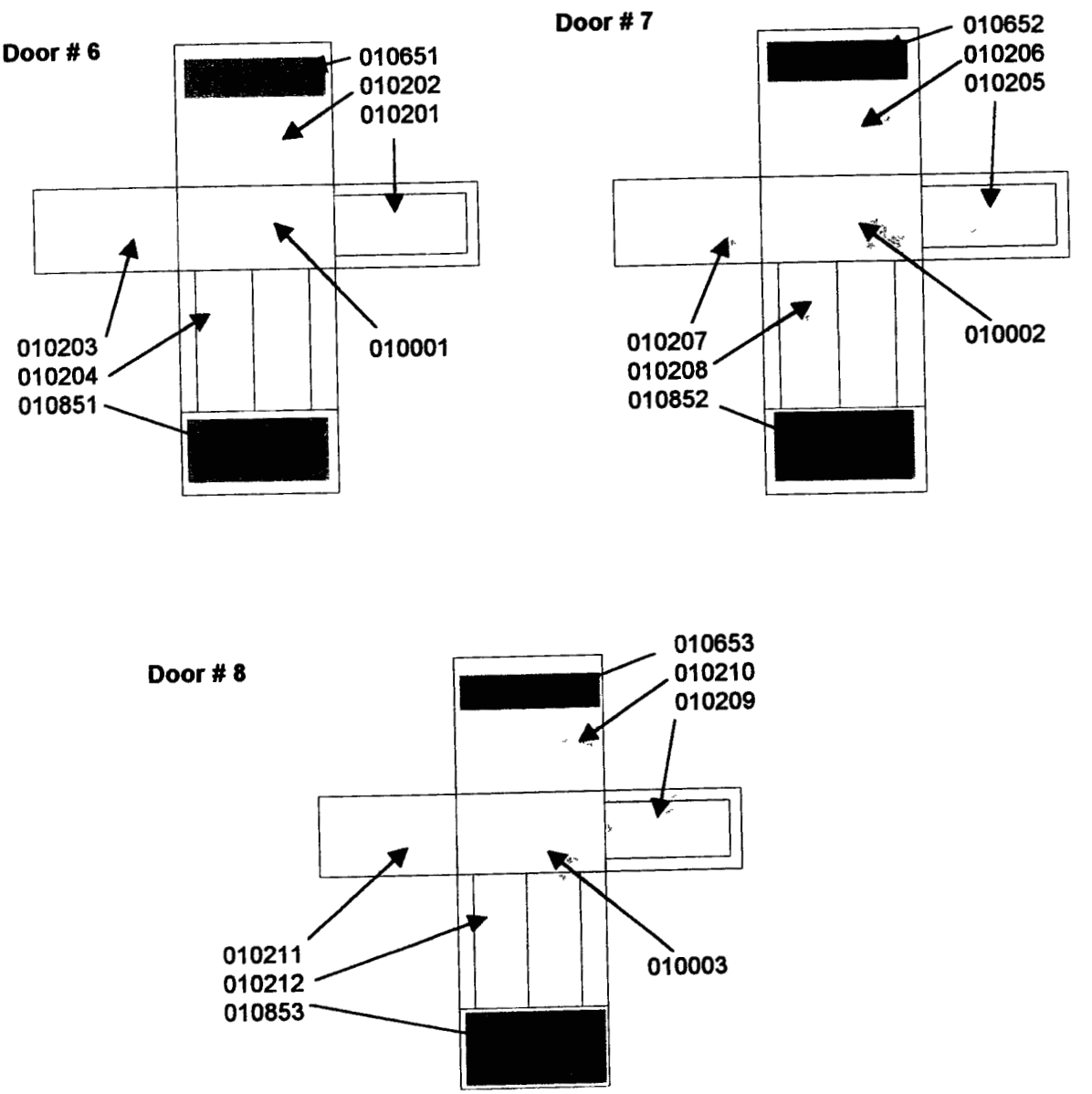


154

Survey Unit 77908
B779 Exterior and dock walls
Map 1 of 1

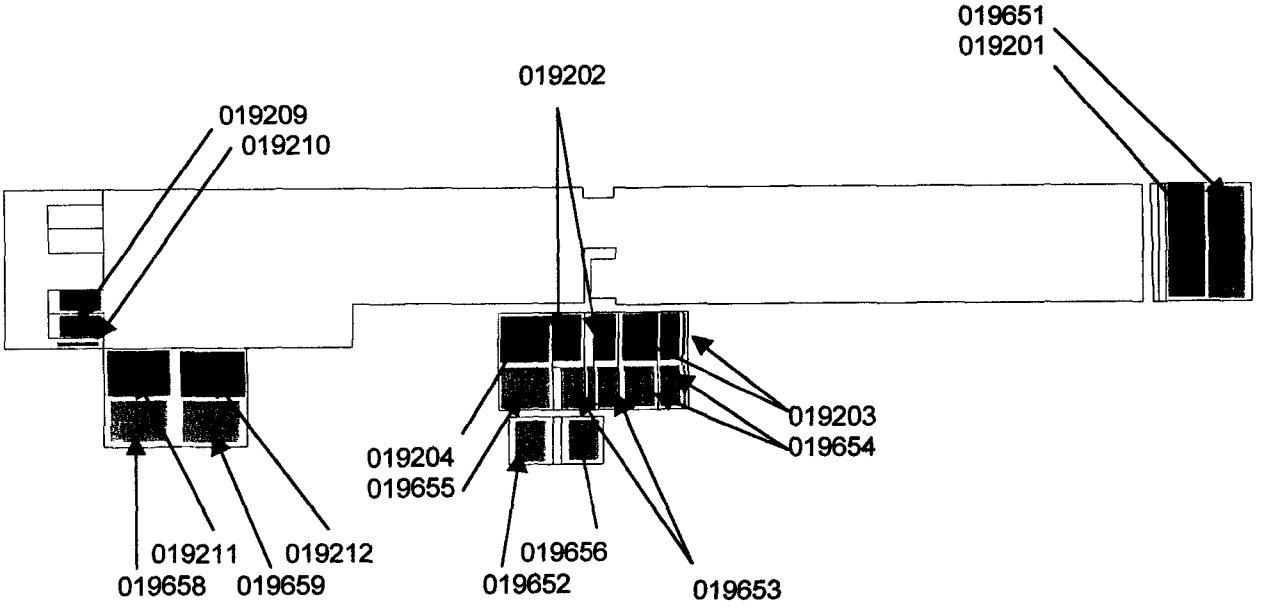


Survey Unit 77910
B779 North Wall Airlocks
Map 1 of 1

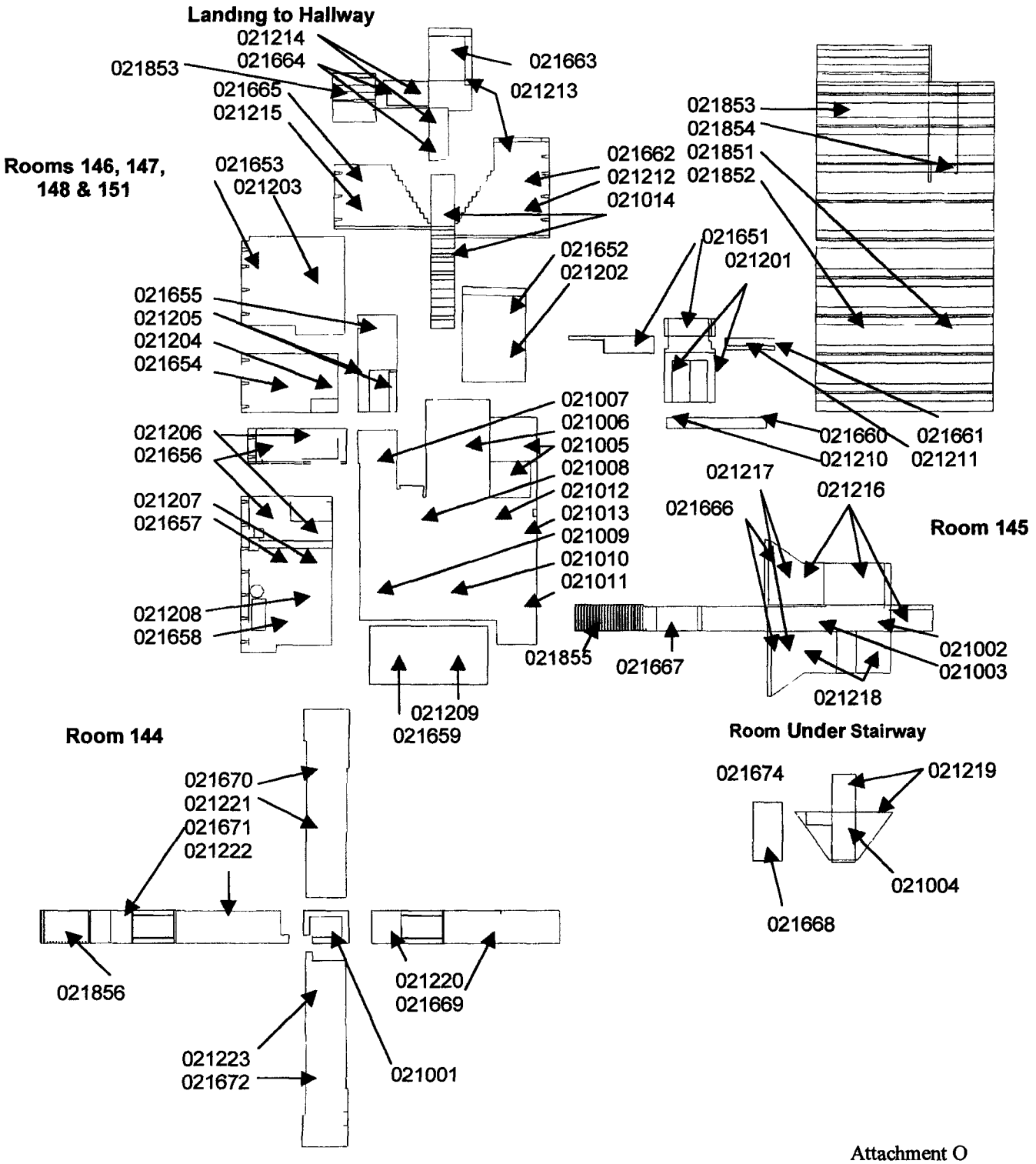


156

Survey Unit 77919
B779 Dock & Ramp (Walls Only)
Map 1 of 1



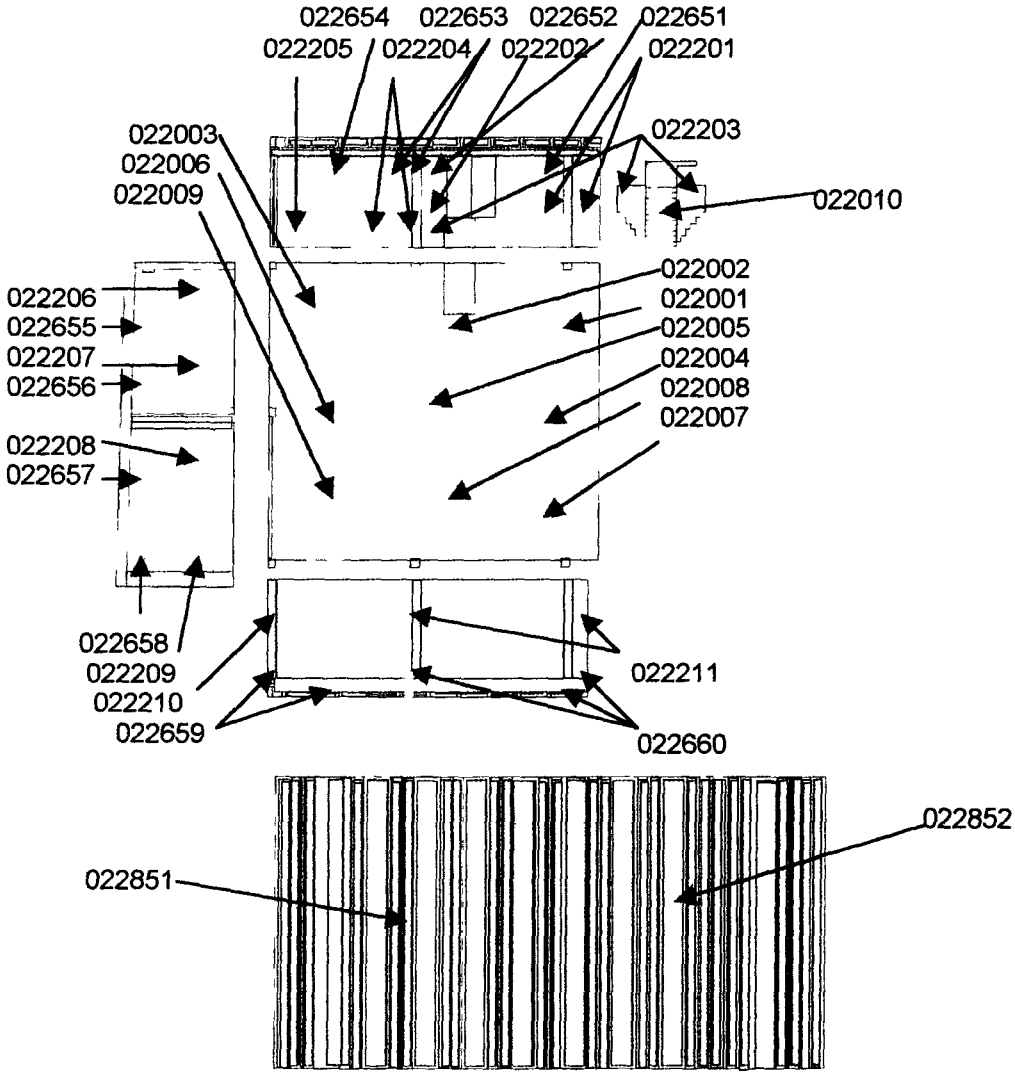
Survey Unit 77921
B779 Rooms 144, 145, 146, 147, 148 & 151
Map 1 of 1



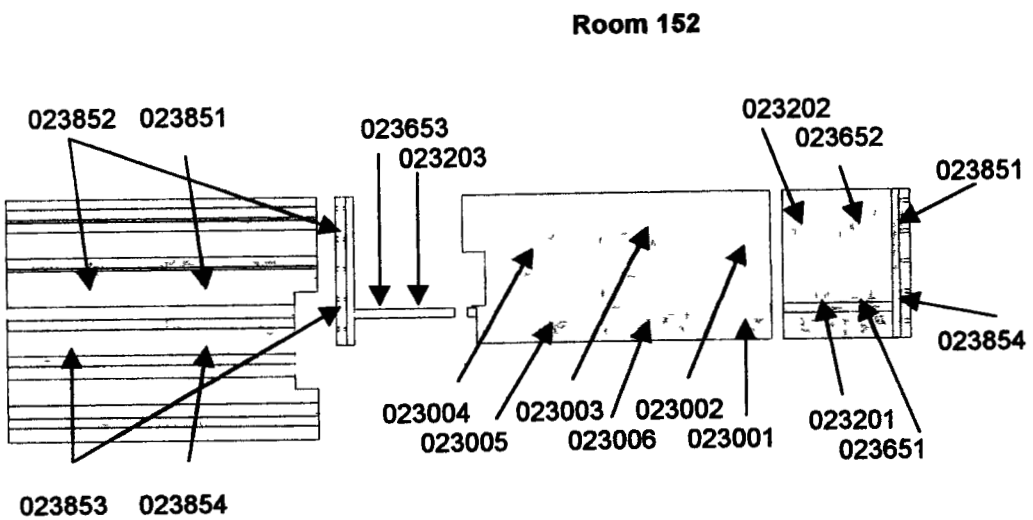
158

Survey Unit: 77922
B779 First Floor "A" Annex Room 150
Map 1 of 1

Room 150

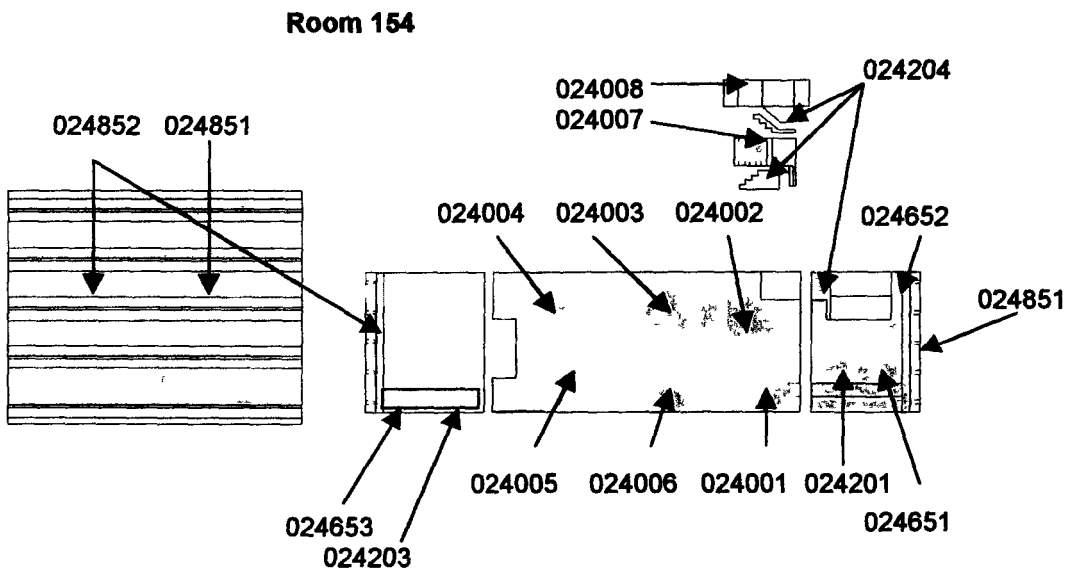


Survey Unit: 77923
B779 First Floor "A" Annex Room 152
Map 1 of 1



160

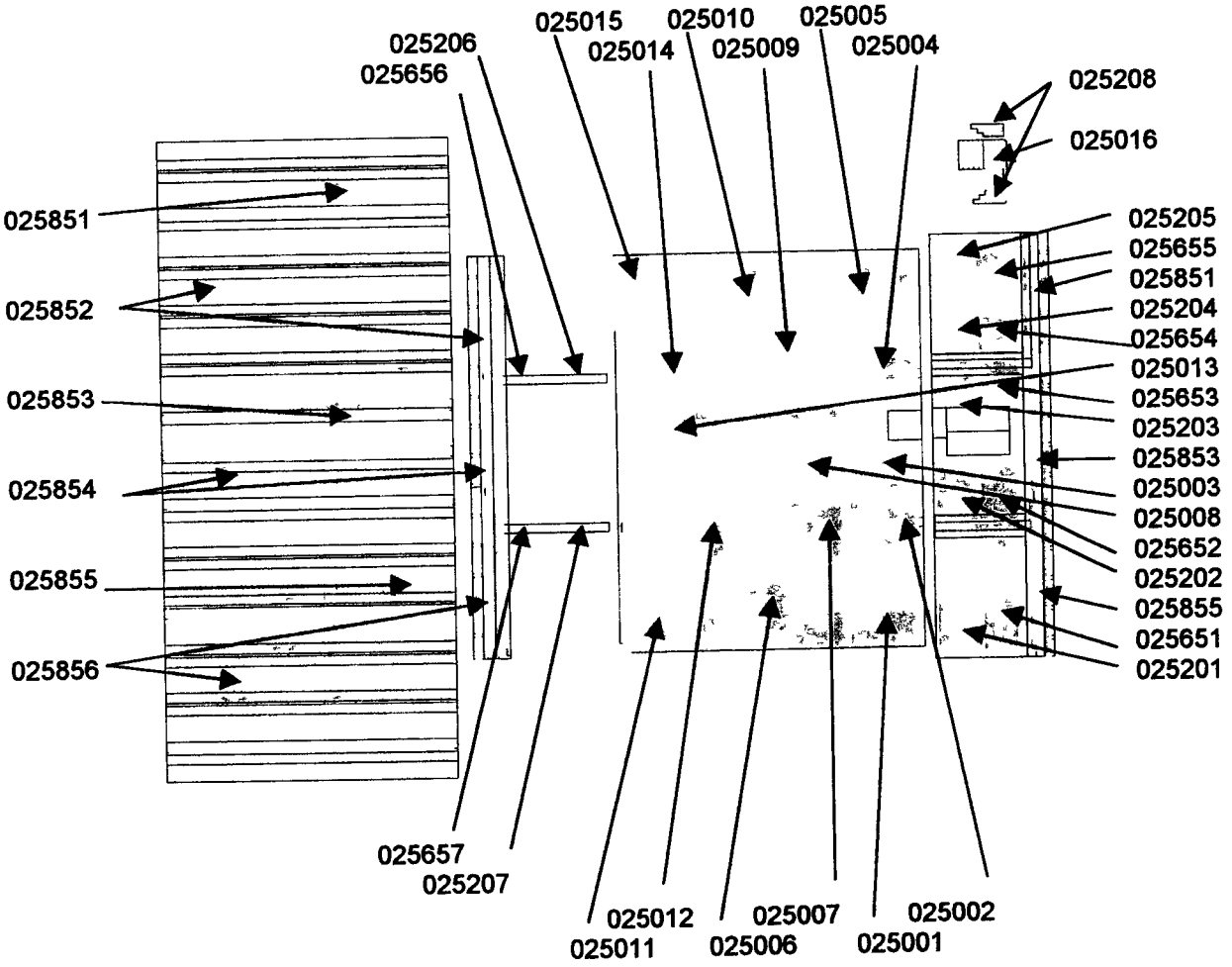
Survey Unit 77924
B779 First Floor "A" Annex Room 154
Map 1 of 1



161

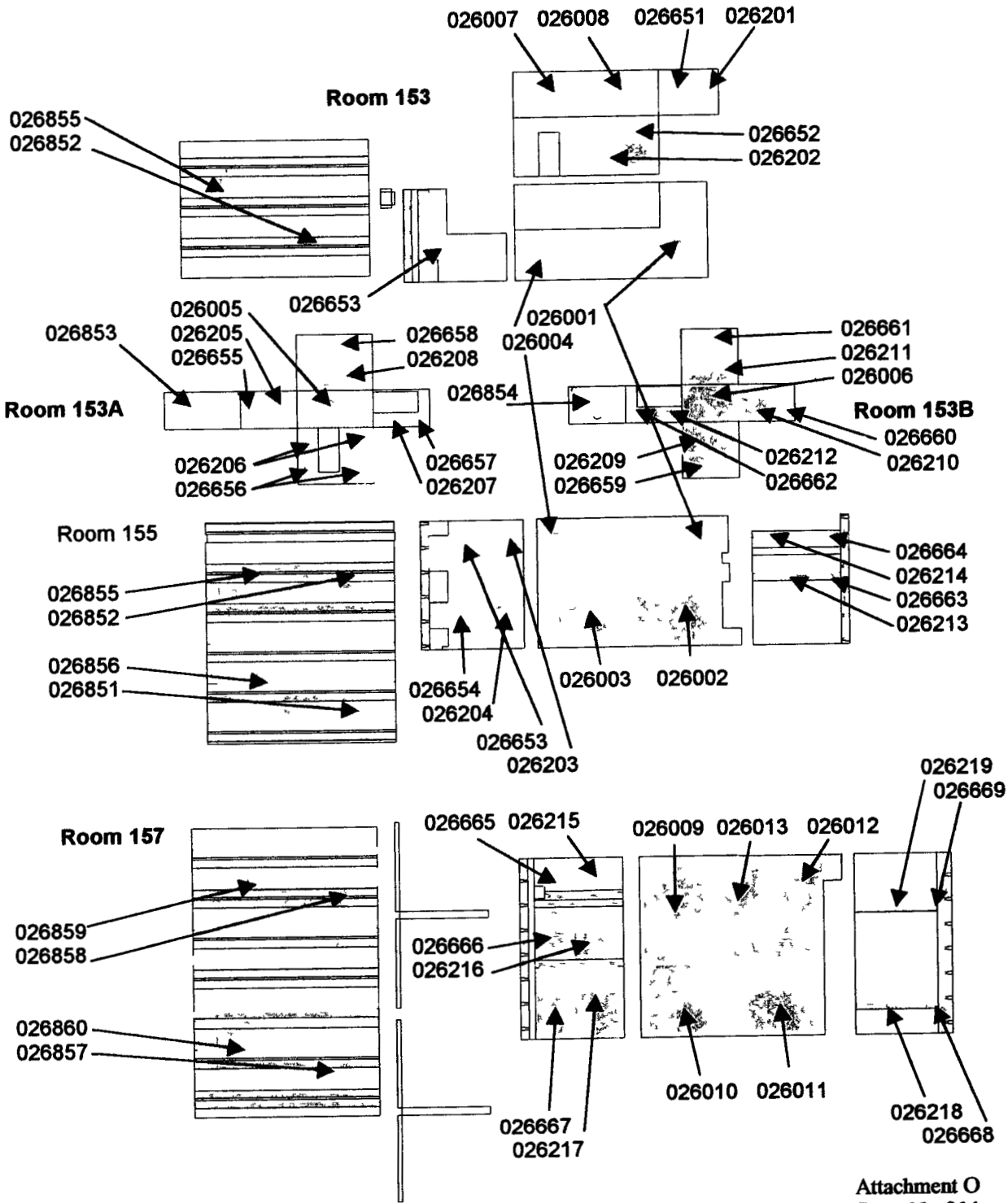
Survey Unit: 77925
B779 First Floor "A" Annex Rooms 156, 160 & 160A
Map 1 of 1

Rooms 156, 160 & 160A

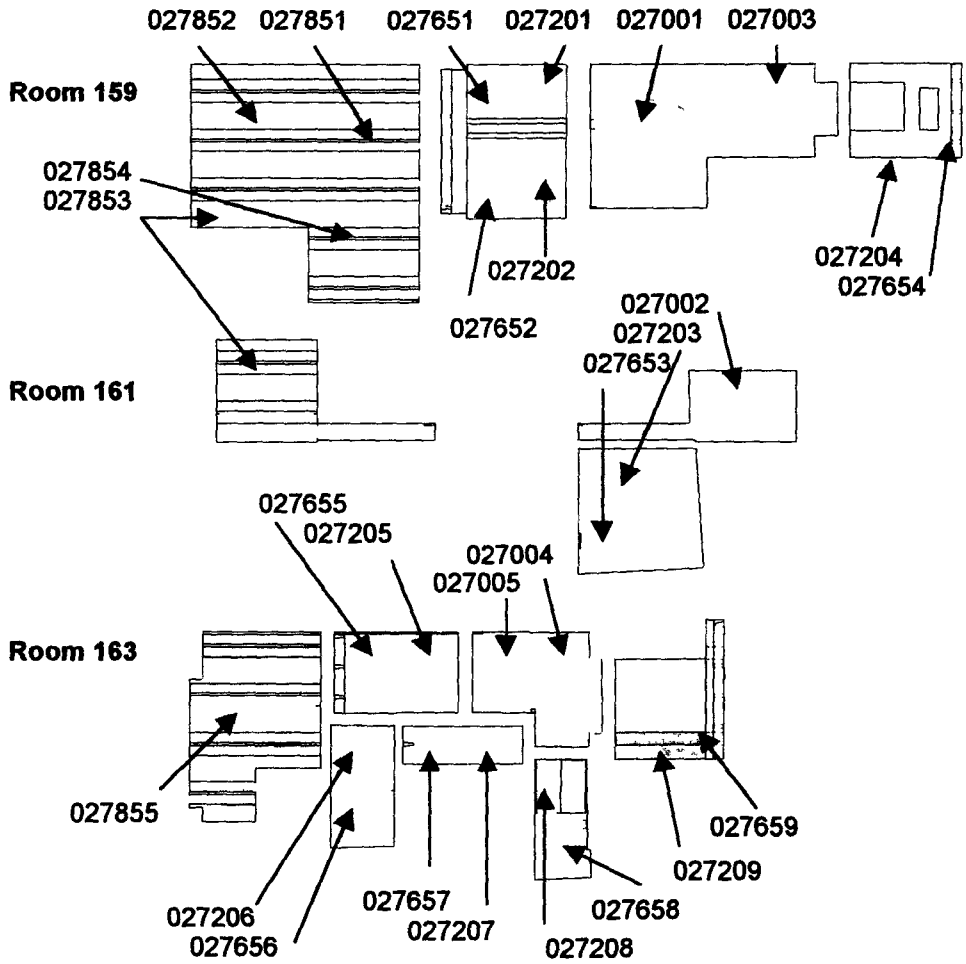


162

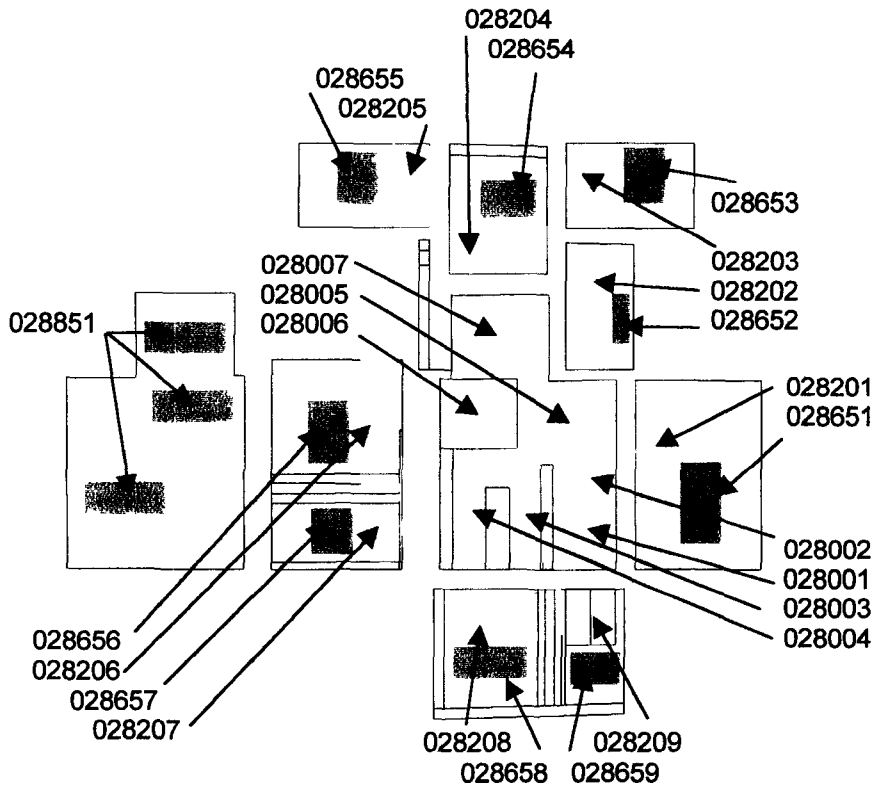
Survey Unit: 77926
B779 First Floor "A" Annex Rooms
Map 1 of 1



Survey Unit: 77927
B779 First Floor "A" Annex Rooms 159, 161 & 163
Map 1 of 1

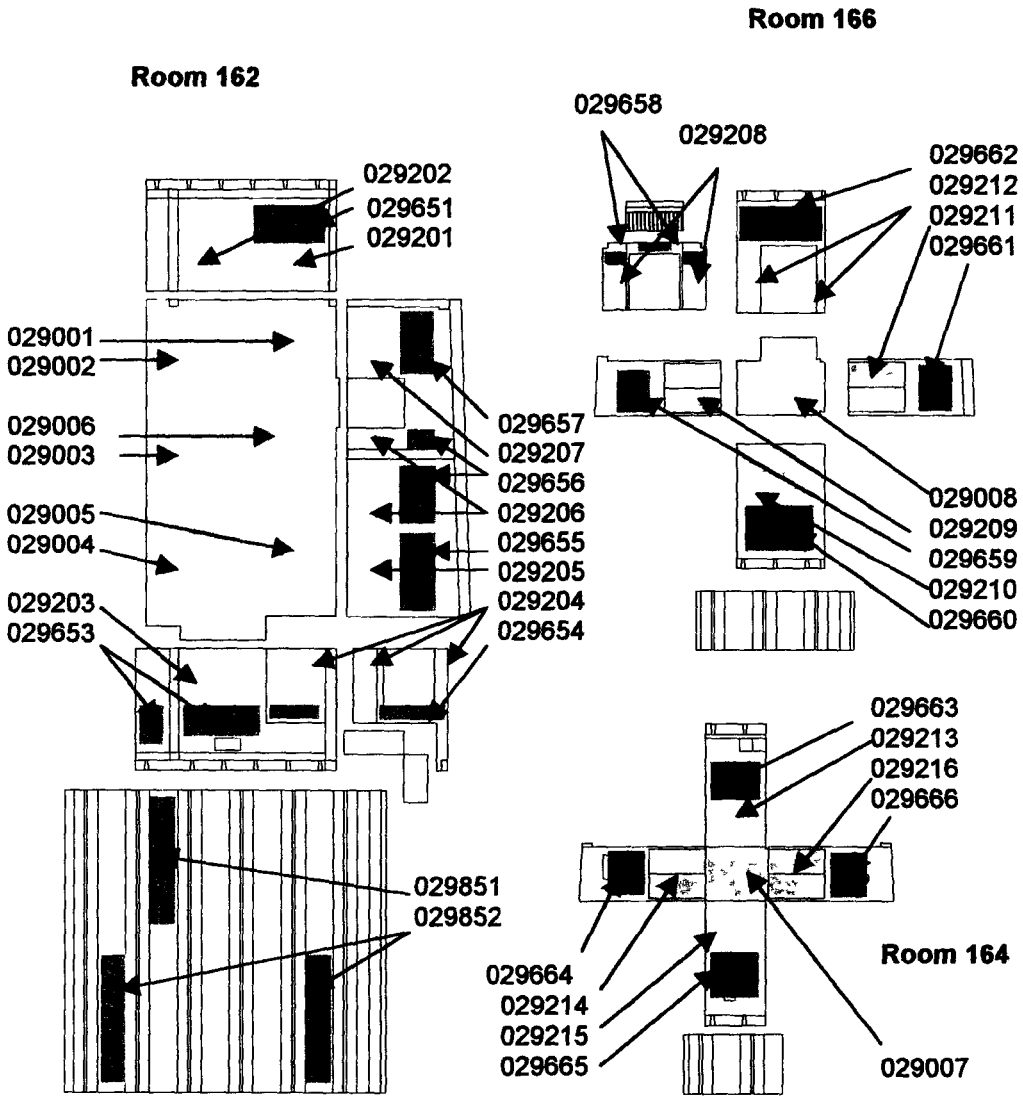


Survey Unit: 77928
B779 Rooms 163, 165, 167 & 167A
Map 1 of 1



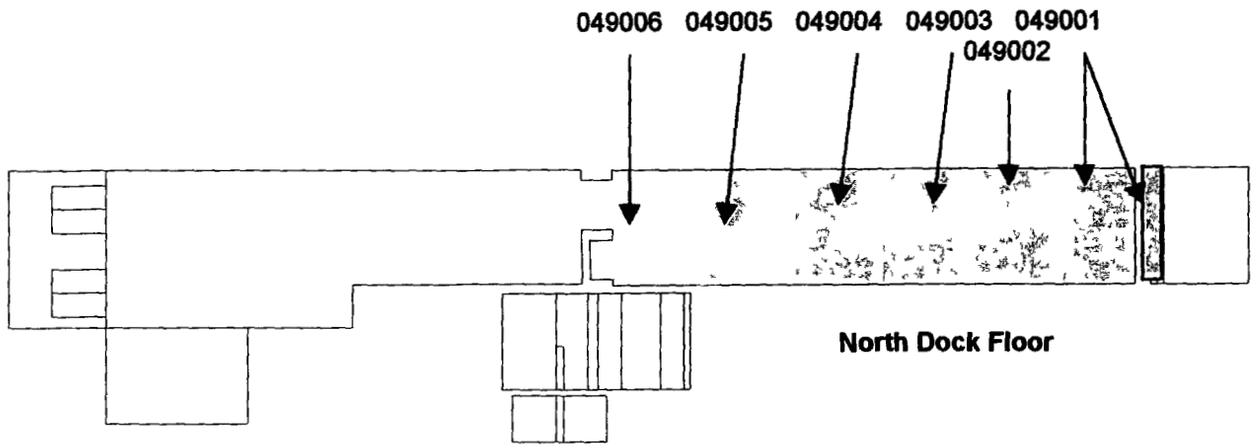
165

Survey Unit: 77929
B779 First Floor "A" Annex Rooms 162, 164 & 166
Map 1 of 1



166

Survey Unit 77949
B779 North Dock Floor
Map 1 of 1



ATTACHMENT P
SCM/SIMS Quality Control Charts

QC Control Charts

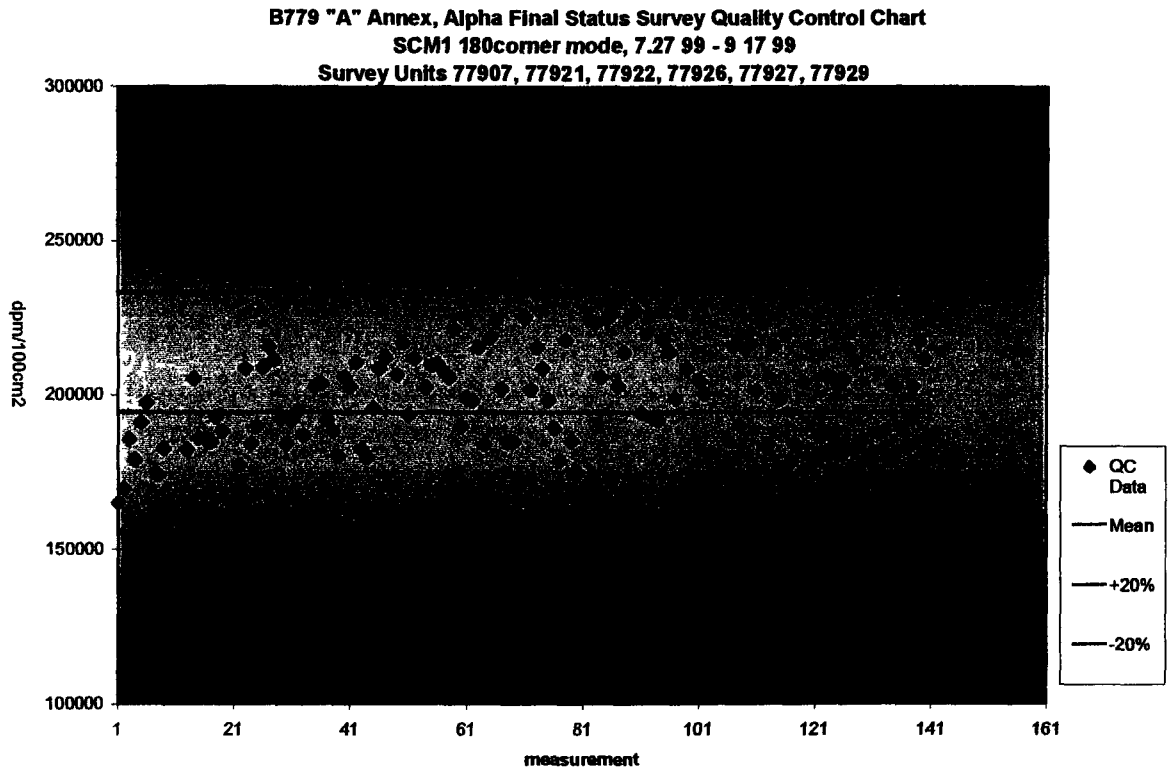
The QC control charts are attached The QC survey is to be distinguished from the daily source check as follows The daily source check allows the survey technician to determine that the instrument is responding within acceptable values for total background subtracted counts using a radioactive source The QC survey is used to continuously update the control charts. The control charts are used to determine the efficiency of each detector assembly, verify adequate system performance, and to observe trends that may indicate monitoring system problems

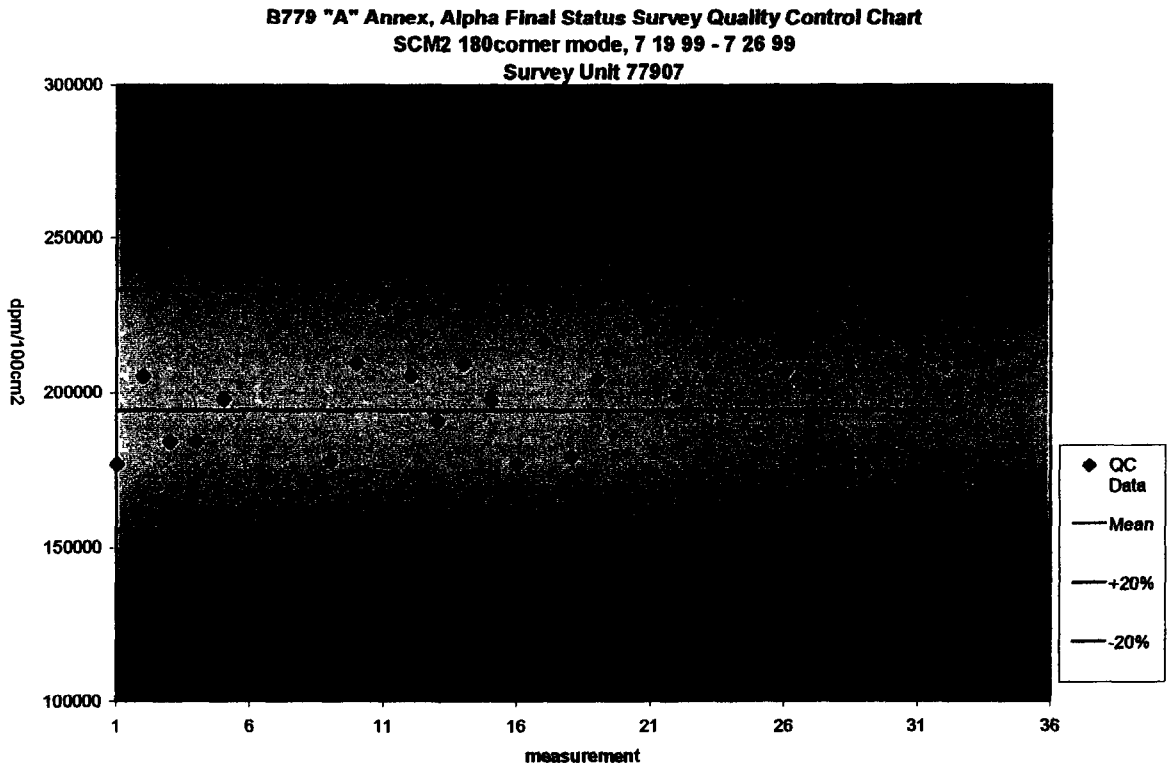
The control chart plots a mean of the Pu-238 source measurements (source strength = 194,400 dpm) It also shows the range of plus and minus 20% from the mean value A typical QC survey contains at least six measurements (or twelve, if a recount assembly is used), which consist of at least three pre survey QC measurements and three post survey QC measurements Additionally, every three hours, three (or six) more measurements are obtained during the survey

In a few cases, values have fallen outside of 20% from the mean Singular events outside the range are not considered failures in the measurement process provided that the other values are within the acceptable range. Single events outside the range are treated as normal statistical occurrences In other words, if two out of the three QC measurements are within 20% of the mean, the QC survey is considered acceptable

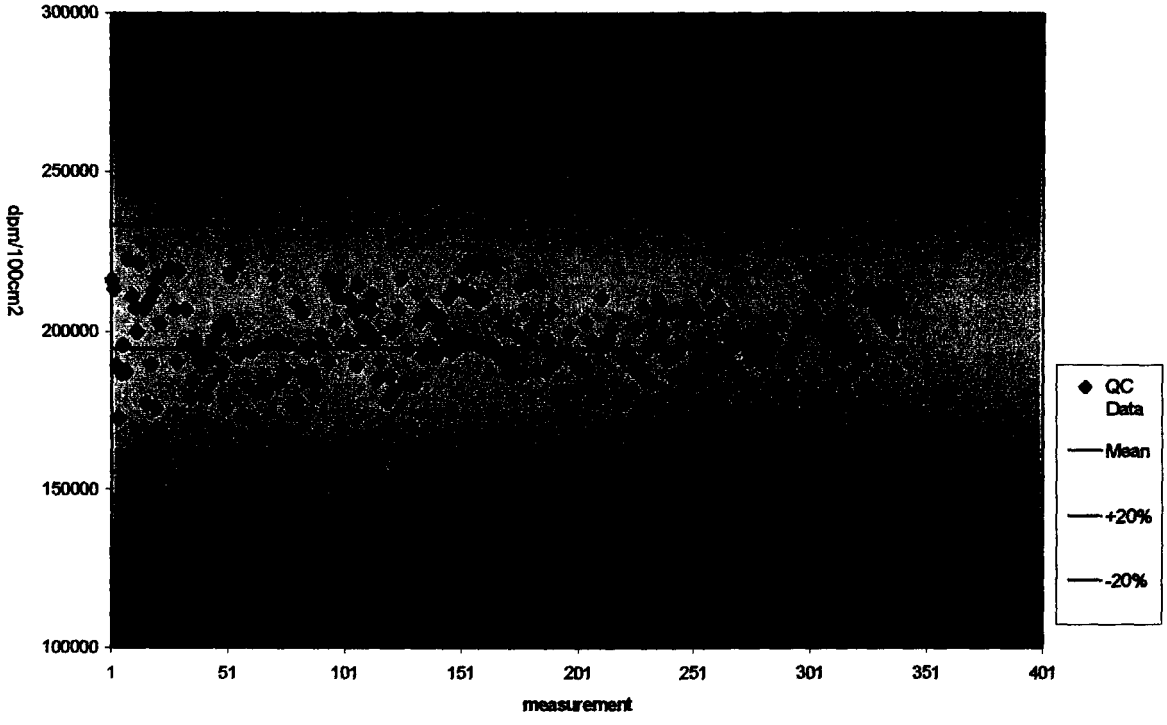
Two QC surveys failed resuling in the rejection of two of the 964 scan surveys that were performed in the "A" Annex. The rejected QC data is not reported on these charts

In conclusion, the following charts show no trends that would require re-survey of the "A" Annex final surveys


B779 "A" Annex, Alpha Final Status Survey Quality Control Chart
SCM1 180corner mode, 7.27 99 - 9 17 99
Survey Units 77907, 77921, 77922, 77926, 77927, 77929
300000
250000
200000
150000
100000
dpm/100cm2
1
21
41
61
81
101
121
141
161
measurement
QC Data
Mean
+20%
-20%


B779 "A" Annex, Alpha Final Status Survey Quality Control Chart
SCM2 180corner mode, 7 19 99 - 7 26 99
Survey Unit 77907
300000
250000
200000
150000
100000
dpm/100cm2
1
6
11
16
21
26
31
36
measurement
QC Data
Mean
+20%
-20%

B779 "A" Annex, Alpha Final Status Survey Quality Control Chart
SCM3 180corner mode, 8 13 99 - 10.27 99
Survey Units 77907, 77908, 77910, 77919, 77921, 77922, 77923, 77924, 77925, 77926, 77927, 77928, 77929, 77949



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ATTACHMENT Q
Data Quality Assessment

DATA QUALITY ASSESSMENT

1.0 INTRODUCTION

Data used in making management decisions for waste management remedial actions must be of adequate quality to support the decisions Adequate data quality for decision-making is required by applicable RMRS and K-H corporate policies (RMRS, 1998, §6 4 and K-H, 1997, §7 1 4 and 7 2 2), as well as by the customer (DOE, RFFO, Order O 414 1, Quality Assurance, §4 b (2)(b)) Regulators and the public also expect decisions and data that are technically and legally defensible Verification and validation of the data ensure that data used in decisions resulting from the FSS are usable and defensible

Verification and validation (V&V) of this Closeout Radiological Survey Report (CRSR) are the primary components of the DQA Statistical (hypothesis) tests were not performed on the data sets for decision-making purposes, as measurement results from all Survey Units were compared on a one-to-one basis with free-release criteria as described in DOE Order 5400 5 Use of Order 5400 is more conservative than MARRSIM or EPA QA/G-9 techniques, as it allows averaging of measurement results to only 1 m^2 or less

The DQA presented in this Attachment supports conclusions in the report through implementation of the QA/QC guidelines taken from the following MARSSIM sections

- §4 9, Quality Control
- §8 2, Data Quality Assessment
- §9 0, Quality Assurance & Quality Control
- Appendix E, Assessment Phase of the Data Life Cycle
- Appendix N, Data Validation using Data Descriptors

The MARSSIM-recommended criteria for V&V of final status survey data, listed above, are concisely summarized in Table Q-1 The MARRSIM criteria are listed across the top of the table whereas the project's proof of implementation is listed along the left-hand side of the page Note that 1 or more "checks" *per column* exhibit compliance with the MARSSIM criteria, which are listed per column

2.0 VERIFICATION OF RESULTS

Verification ensures that data produced and used by the project are documented and traceable per quality requirements Verification consisted of reviewing the project's data relative to three subsets 1) radiological scans with the SCM/SIMS, 2) static surveys for removable and total contamination, and 3) radiochemical data resulting from paint samples analyzed via alpha spectrometry Consistent with previous reports, verification confirmed that

- Chain-of-Custody was intact from initial sampling though transport and final analysis,
- preservation and hold-times were within tolerance
- format and content of the data are clearly presented relative to goals of the project, i e , to determine, with at least 95% confidence, that the survey units of interest (A Annex) are adequate for radiological free release

Verification of the A Annex FSS data also addressed quality records representing implementation of the following quality controls

- calibrations (radiochemistry & surveys), for accuracy
- laboratory control samples (LCS -- radiochemistry), for accuracy
- blanks (radiochemistry), for accuracy
- duplicate measurements (radiochemistry & surveys), for precision
- chemical yield (radiochemistry), for accuracy
- count times (radiochemistry & surveys), for sensitivity
- sample preparations (radiochemistry), for accuracy, representativeness

SCM data were systematically managed and verified as follows

- A Survey Summary Sheet was generated for each survey unit, which lists all Final Survey subunits, including the associated investigation surveys
- The Survey Summary Sheet was compared to the electronic (computer) directory structure, the Project File (handwritten survey data) and SIMS-generated survey data for a "3-way" verification
- The Survey Summary Sheet, ordered by survey unit, is maintained at the front of the electronic database file structure as well as in the file cabinet

Areas requiring 100% survey coverage were verified as follows

- An overview map was developed for each survey unit
- The overview map served as an index of the subunits, and defined the subunit boundaries
- Every survey map used to document Electra as well as SCM scan surveys was reviewed against the overview map for coverage
- Because every survey map was correlated to a survey form, and all survey forms were inventoried via the survey summary sheet, 100% coverage of every subunit was assured

Areas requiring 10% to 50% survey coverage were verified as follows

- The area covered by the survey was summed for each subunit
- The subunit size was electronically calculated in Turbocad using scaled maps
- The sum of all subunits in the survey unit was summed
- The area surveyed was divided by the sum of the subunit size to determine the percent surveyed

Upon completion of the data management activities listed above, an independent peer review was performed on each survey package

All relevant Quality records associated with the A Annex D&D final status survey decisions will be submitted to the RMRS Records Center for permanent storage within 30 days of the conclusion of the 779 project

3.0 VALIDATION OF RESULTS

Validation consists of a technical review of all data that directly support the FSS decisions, so that any limitations of the data relative to project goals are delineated, and the associated data are qualified (caveated) accordingly Data were validated relative to

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1) the DQOs of the project as defined in the CRSP for the 779 Cluster (i e , did the final data achieve the initial DQOs of the project?), and

2) quality criteria discussed throughout various sections in the MARSSIM (sections noted previously)

MARSSIM criteria for the broad topic of "data quality assessment" used in final status surveys generally falls within the generic categories of quality assurance, quality control, data validation, and data assessment (including verification and validation) Table Q-1 provides a "crosswalk" that lists the primary MARSSIM sections and generic data quality criteria (at top) and their corresponding implementation via the CRSP, CRSR, and project files

All of the significant MARSSIM criteria listed in Table Q-1 are summarily discussed within the "PARCC Parameters" section PARCC parameters are congruent with "data descriptors" in the MARSSIM parlance and address characteristics of the data that must be defined for scientific integrity and defensibility Recall that at least one "X" in each column of the table constitutes achievement of the MARSSIM quality objective (vs one "X" in each row) The next section, which addresses the PARCC parameters -- Precision, Accuracy, Representativeness, Comparability, and Completeness also includes discussion on bias and sensitivity, two more data descriptors emphasized in MARSSIM

Validation of data to K-H contractual requirements (K-H Statements of Work is currently performed on a site-wide basis at ~25% frequency by the K-H Analytical Services Division Satisfactory validation at this frequency indicates that subcontracted labs are operating competently relative to industry-wide standards, and more specifically, that sample custody and analytical procedures are implemented under defined quality controls on a sitewide programmatic basis Sitewide data validation coupled with annual lab audits provides the inference that all analytical and radiochemical results not *specifically* validated, are represented by the percentage that is validated Radiochemistry performed for this FSS were verified as meeting K-H contractual requirements via Module RC01-B 3 for alpha spectrometry

PARCC PARAMETERS

PRECISION

Fundamental reproducibility of measurements, at levels near MDA and between different types/brands of instruments, are discussed at length in the "B779 Final Status Survey Meeting Resolution of CDPHE/EPA/IVC Comments, 6/30/99", which is included as Appendix 5 to the *Closeout Radiological Survey Report for Building 729*

1) Radiological Surveys

Precision of the radiological instrumentation was satisfactory based on tolerance charting of daily source measurements for each individual sensor used on the project, which includes all measurement types (scans and static measures for total contamination, swipes for removable) Adequate precision was established through instrument performance within a ±20% range as defined by measurement results compared to a standard source value Based on standard protocol (*Radiological Safety Practices*) any measurement exceeding the defined tolerance limits required corrective action (repair or replacement) prior to the instrument's use in final survey

For the SCM, three (3) measurements were taken for each QC check "episode", i e , before and after each set of measurements per work shift (Millennium QAP, 3/99) Of the 3 measurements, 2 measurements had to pass specifications Performance checks performed on the SCM are shown in the respective control charts (Attachment P) Two measurements not within the ± 20% tolerance envelope required corrective action prior to the instrument's use or re-use

Duplicate total surface activity measurements were also periodically acquired (≥5% frequency of original final survey measurements) on the MARSSIM survey grids All duplicate measurements were within tolerance based on the acceptance criterion that both results be below $DCGL_W$ (note that, even if populations were "significantly" different between real and duplicate results, if both duplicate and real population statistics are less than action levels, the difference between duplicate and real values is, ultimately, insignificant relative to free-release decisions)

2) Radiochemistry

Results from laboratory duplicates indicate adequate reproducibility based on duplicate results within statistical tolerance values (>90% confidence of equivalency between the original sample and the duplicate) Although blind duplicate samples were not acquired for determination of overall project precision, agreement between the multiple samples to within a range less than the $DCGL_W$ indicate that reproducibility is adequate for project decisions (i e , relative to free-release of materials)

ACCURACY (and Bias)

1) Radiological Surveys

Accuracy of all radiological surveys is satisfactory based on implementation of protocols covering calibrations (at least annual) and periodic checks (at least daily) All instrumentation except the SCM/SIMS is controlled through (RFETS) site-specific procedures (e g , RSPs), whereas the SCM/SIMS is controlled through the subcontractor's (Millennium Services Inc.) QAP and associated SOPs Calibration and calibration check results were within the RFETS and industry-standard requirement of 20% of the applicable reference standard values. Full-scale, multi-point calibrations provided accuracies of ± 10% prior to use of hand-held survey instruments in the project, consistent with guidelines put forth in ANSI-N323 All protocols that control instrumentation accuracy are included in the reference section, and may be referenced through the site document control system (site documents) or in the 779 Project File (Millennium QAP)

Key work-controlling procedures that contribute to accuracy (and representativeness) of the radiological surveys consist of the following

- Kaiser-Hill, LLC , 1999 *Radiological Safety Practices* RFETS, Golden, CO
- Millennium Services, Inc 1999 *Quality Assurance Plan for Radiological Surveys at RFETS, 779 Cluster*
- Ibid , 1999 SCM Procedure 008, *Conduct of Operations for Surveys using the SCM/SIMS*
- Ibid , 1999 SCM Procedure 005, *Requirements for the Completion of Surveys using the SCM*

- Ibid , 1999 SCM Procedure 006, *Performing a Position Calibration*
- Ibid , 1999 SCM Procedure 007, *Response Check of any Detector Configuration Installed on the SCM*
- Ibid SCM Procedure 001, *Calibration and Field Confirmatory Tests of the Incremental Encoder included on the SCM*

Distance measurements recorded by the SCM/SIMS are within 3% of actual distances for mapping and location purposes, as documented in the "Incremental Encoder Calibration Verification Data Sheet "

Some bias may be indicated within control charts of the SCM (Attachment P), with runs of data below or above the reference standard value However, given the overall low values of the data sets relative to the free-release criteria and the low probability of false negatives, the potential biases do not impact the ultimate project decisions of compliance with free-release criteria for the 14 survey units of interest for A Annex Potential low biases in recount results – where recounts were performed with a hand-held instrument (Electra) following elevated counts (above action- or investigative-levels) by the SCM – have been concluded as insignificant, primarily based on the higher sensitivities of the hand-held instrumentation, where lower values would be expected if contamination was, in fact, absent Comparability of these instruments, their results, and the role of measurement uncertainties in evaluating bias were have been addressed in related documentation (Appendix 5 of the Building 729 Closeout Report)

2) Radiochemistry

Accuracies of radiochemical results were within tolerance and acceptable based on the associated results of LCS and calibrations at the lab Preparation blanks also confirmed that no significant cross-contamination occurred in the analysis process Uncertainties of the radiochemical results are quantified for each sample by 2-sigma (counting) error Uncertainties associated with the alpha-spec analyses were within standard industry magnitudes and did not adversely impact project decisions

REPRESENTATIVENESS

Samples and surveys are representative based on the following criteria

- familiarity with facilities -- multiple walk-downs and collaborations by management and technical staff,
- implementation of industry-standard Chain-of-Custody protocols,
- compliance with sample preservation and hold times,
- use of documented and (site) approved methods
  - radiochemistry - alpha spectrometry via K-H Module RC01-B 3 (4/24/98)
  - radiological surveys - K-H RSP 7 02
- compliance with the CRSP (RMRS, March 1999) -- reviewed & approved by technical and management consensus prior to implementation

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COMPLETENESS
Data packages for all 14 Survey Units are complete with respect to Survey Package contents The table, provided below, summarizes the minimum required number of samples or surveys and the actual quantity of samples or surveys

Consistent with EPA's G-4 DQO process, the sampling design was optimized through back-calculating actual measurement results (acquired during final status survey) and comparing model output with original estimates Use of actual sample/survey (result) variances in MARSSIM's DQO model provided confirmation that an adequate number of samples/surveys had been acquired Inputs required for decision-making, as stated in the original (planning) DQOs, were acquired, including coverage of originally-planned 3-dimensional boundaries of the structure All radiological results are valid without qualification, and form data sets with adequate quantities and quality of data for free-release decisions on the 14 survey units of interest

Rad Measurement Type	Required # of Samples/ Surveys [1]	Actual # of Samples/ Surveys	Comments
Survey Unit 77907			
Shonka SCM/SIMS (total)	10-50% areal coverage[3]	> 50% areal coverage	DQO achieved
NE Electra (total)[2]	17	19	DQO achieved
Eberline SAC-4 (removable)[2]	17	19	DQO achieved
Radiochemical	17	17	DQO achieved
Survey Unit 77908			
Shonka SCM/SIMS (total)	10-50% areal coverage[3]	> 50% areal coverage	DQO achieved
NE Electra (total)[2]	15	20	DQO achieved
Eberline SAC-4 (removable)[2]	15	20	DQO achieved
Radiochemical	13	14	DQO achieved
Survey Unit 77910			
Shonka SCM/SIMS (total)	10-50% areal coverage[3]	> 50% areal coverage	DQO achieved
NE Electra (total)[2]	15	21	DQO achieved
Eberline SAC-4 (removable)[2]	15	21	DQO achieved
Radiochemical	15	16	DQO achieved
Survey Unit 77919			
Shonka SCM/SIMS (total)	>10% areal coverage	>>10% areal coverage	DQO achieved
NE Electra (total)[2]	15	15	DQO achieved
Eberline SAC-4 (removable)[2]	15	15	DQO achieved
Radiochemical	NA	NA	NA

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Rad Measurement Type	Required # of Samples/ Surveys [1]	Actual # of Samples/ Surveys	Comments
Survey Unit 77921			
Shonka SCM/SIMS (total)	100% areal coverage	100% areal coverage	DQO achieved
NE Electra (total)[2]	17	29	DQO achieved
Eberline SAC-4 (removable)[2]	17	29	DQO achieved
Radiochemical	17	17	DQO achieved
Survey Unit 77922			
Shonka SCM/SIMS (total)	100% areal coverage	100% areal coverage	DQO achieved
NE Electra (total)[2]	24	24	DQO achieved
Eberline SAC-4 (removable)[2]	24	24	DQO achieved
Radiochemical	24	24	DQO achieved
Survey Unit 77923			
Shonka SCM/SIMS (total)	100% areal coverage	100% areal coverage	DQO achieved
NE Electra (total)[2]	15	16	DQO achieved
Eberline SAC-4 (removable)[2]	15	16	DQO achieved
Radiochemical	NA	NA	NA
Survey Unit 77924			
Shonka SCM/SIMS (total)	100% areal coverage	100% areal coverage	DQO achieved
NE Electra (total)[2]	15	15	DQO achieved
Eberline SAC-4 (removable)[2]	15	15	DQO achieved
Radiochemical	NA	NA	NA
Survey Unit 77925			
Shonka SCM/SIMS (total)	100% areal coverage	100% areal coverage	DQO achieved
NE Electra (total)[2]	15	30	DQO achieved
Eberline SAC-4 (removable)[2]	15	30	DQO achieved
Radiochemical	NA	NA	NA
Survey Unit 77926			
Shonka SCM/SIMS (total)	100% areal coverage	100% areal coverage	DQO achieved
NE Electra (total)[2]	15	28	DQO achieved
Eberline SAC-4 (removable)[2]	15	28	DQO achieved
Radiochemical	NA	NA	NA
Survey Unit 77927			
Shonka SCM/SIMS (total)	100% areal coverage	100% areal coverage	DQO achieved
NE Electra (total)[2]	15	23	DQO achieved
Eberline SAC-4 (removable)[2]	15	23	DQO achieved
Radiochemical	15	15	DQO achieved

Survey Unit 77928			
Shonka SCM/SIMS (total)	>10% areal coverage[3]	>>10% areal coverage[3]	DQO achieved
NE Electra (total)[2]	15	24	DQO achieved
Eberline SAC-4 (removable)[2]	15	24	DQO achieved
Radiochemical	15	15	DQO achieved
Survey Unit 77929			
Shonka SCM/SIMS (total)	>10% areal coverage[3]	>>10% areal coverage[3]	DQO achieved
NE Electra (total)[2]	17	21	DQO achieved
Eberline SAC-4 (removable)[2]	17	21	DQO achieved
Radiochemical	17	18	DQO achieved
Survey Unit 77949			
Shonka SCM/SIMS (total)	100% areal coverage	100% areal coverage	DQO achieved
NE Electra (total)[2]	15	20	DQO achieved
Eberline SAC-4 (removable)[2]	15	20	DQO achieved
Radiochemical	NA	NA	NA

(1) see "Summary Statistics Calculation Verification Worksheets " - refer to respective survey packages in 779 project files
(2) also see data summaries for additional "Post-media" surveys, i e , following paint scrapes
(3) MARSSIM guidelines are 10% to 100% for Class 2 interior units, Radiological Engineering professional judgement (stated in the CRSP) yielded ~100% coverage for floors and walls to 2m height, 10% of remaining room surface areas Class 2 exterior survey units require minimum 50% lower walls, 10% upper walls/roof

COMPARABILITY

All results presented are comparable with radiological survey and radiochemistry data on a site- and DOE-complex wide basis This comparability is based on

- use of standardized engineering units in the reporting of measurement results
- consistent sensitivities of measurements at $\leq$ 50% $DCGL_W$ ($\leq$ 50% $DCGL_{EMC}$ for scans)
- use of site-approved procedures (RSPs)
- systematic quality controls
- thorough documentation of the planning, sampling/analysis process, and data reduction into formats designed for making decisions posed from the project's original data quality objectives

SENSITIVITY

Adequate sensitivities, in units of dpm/100 cm^2, were attained for all surveys and radiochemical methods based on MDAs at approximately 50% of the transuranic $DCGL_W$ (~50% $DCGL_{EMC}$ for scans)

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The nominal MDAs for each survey and radiochemical method are summarized as follows

- SCM/SIMS (Millennium/Shonka) - scan surveys/total contamination <160 dpm/100 cm^2
- Surveys (Eberline SAC-4) - removable contamination 10 dpm/100 cm^2
- Surveys (NE Electra) - total contamination 50 dpm/100 cm^2
- Radiochemistry (alpha spec) - total contamination <10 dpm/100 cm^2

4.0 QA ELEMENTS of DOE Order 414.1 and 10CFR830.120

Adequate implementation of the ten quality elements required by DOE Quality Assurance Order (414 1) was corroborated through the verification and validation process described above The ten DOE quality elements, or criteria, are inherent within the MARSSIM guidance, as DOE was a co-authoring organization to the MARSSIM Quality elements deserving emphasis include qualifications of project personnel and additional controls in the areas of engineering design and computer software

All personnel performing quality-affecting activities within the FSS project were qualified to perform their specific tasks Suitable **training and qualification** documentation for personnel performing the work, from the laborers to technical professionals to management, is documented in several ways T&Q status for personnel is included in the *Building 779 Cluster Closure Project Health & Safety Plan* (Rev 6, 18 August 1998) and personnel dossiers controlled by company-specific Human Resource departments

Software quality control for the SCM/SIMS is chronologically documented and archived within the QA/QC folder (for Millennium Services) of the Project File Software used to reduce data from radiochemical sampling and hand-held instrumentation was modified to record verifications and any alterations to calculations following V&V of the calculations Details of the verification process were also improved through use of a checklist, which was completed for each Survey Unit Data Summary

In summary, the data presented in this report have been verified and are qualified as valid and complete for comparison with free-release criteria (action levels) as stated in the original DQOs All media sampled and surveyed, relative to both total and removable alpha activities, yielded results less than action levels for the associated contaminants of concern Therefore, the Survey Units in question meet the free-release criteria with the confidences stated in this section and throughout the report

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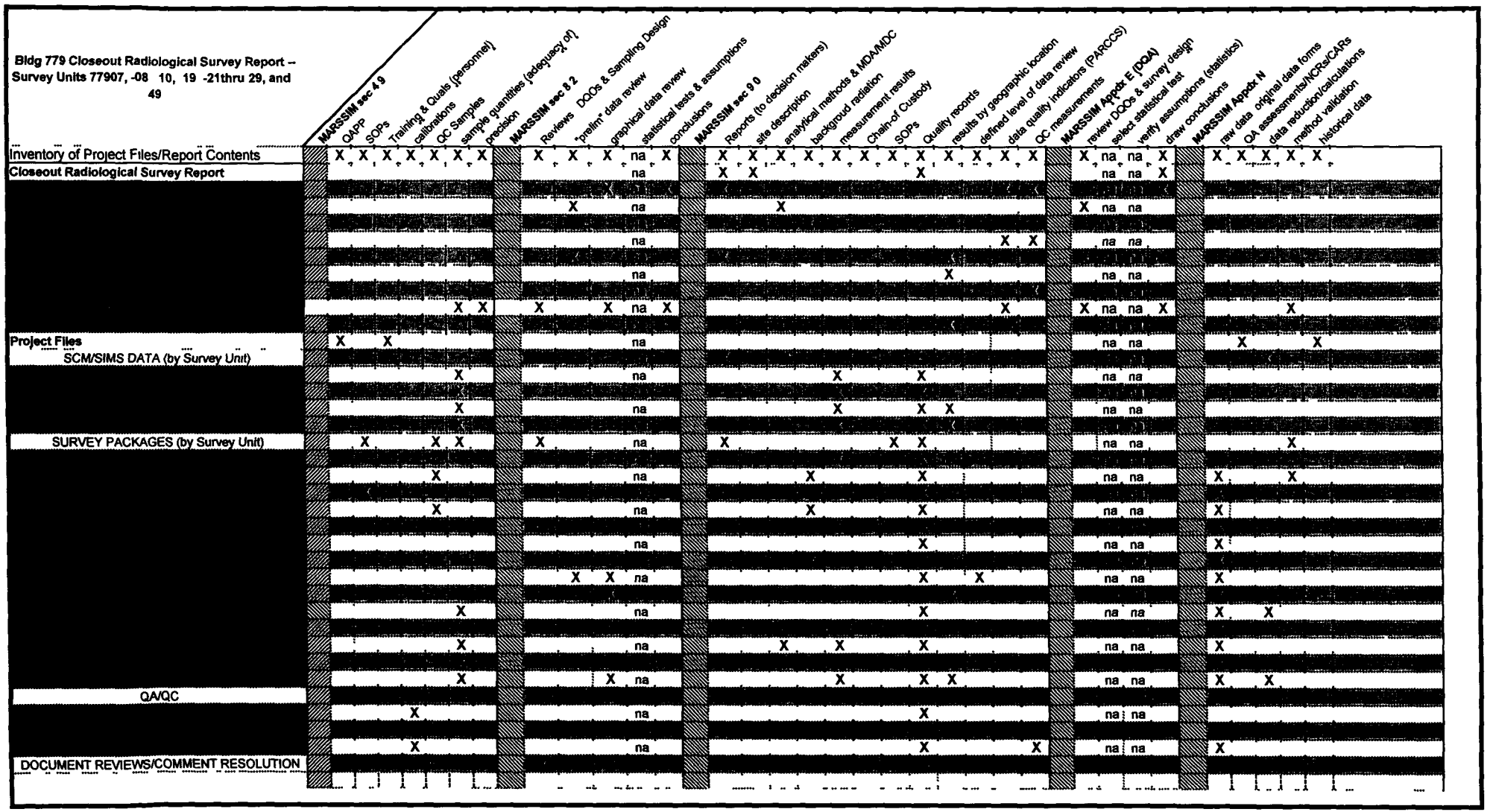

Bldg 779 Closeout Radiological Survey Report -- Survey Units 77907, -08 10, 19 -21thru 29, and 49
MARSSIM sec 4 9
QAPP
SOPs
Training & Quals (personnel)
calibrations
QC Samples
sample quantities (adequacy of)
precision
MARSSIM sec 8 2
Reviews DQOs & Sampling Design
"prelim" data review
graphical data review
statistical tests & assumptions
conclusions
MARSSIM sec 9 0
Reports (to decision makers)
site description
analytical methods & MDA/MDC
backgroud radiation
measurement results
Chain-of Custody
SOPs
Quality records
results by geographic location
defined level of data review
data quality indicators (PARCCS)
QC measurements
MARSSIM Appdx E (DQA)
review DQOs & survey design
select statistical test
verify assumptions (statistics)
draw conclusions
MARSSIM Appdx N
raw data original data forms
QA assessments/NCRs/CARs
data reduction/calculations
method validation
historical data
Inventory of Project Files/Report Contents
Closeout Radiological Survey Report
Project Files
SCM/SIMS DATA (by Survey Unit)
SURVEY PACKAGES (by Survey Unit)
QA/QC
DOCUMENT REVIEWS/COMMENT RESOLUTION

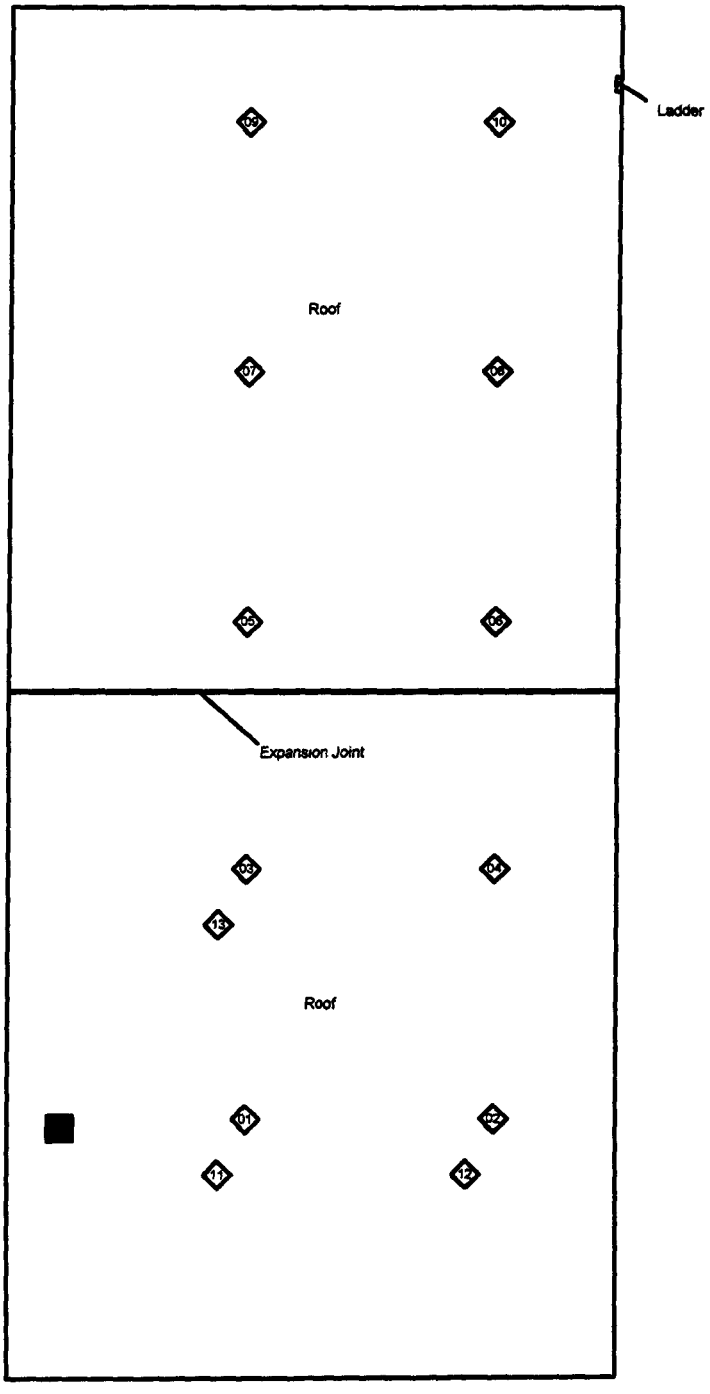
ATTACHMENT R
Sample/Survey Measurement Location Maps

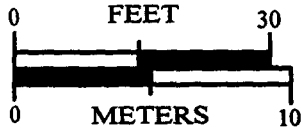
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

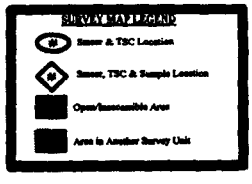
Survey Area H **Survey Unit:** 77907 **Classification** 2
Building 779
Survey Unit Description B779 Exterior Walls & Roof (Annex A West/North Walls & Roof)

Total Floor Area 1086 sq m **Total Area** 1544 sq m **Grid Size** 9m x 9m

SURVEY UNIT 77907-MAP 1 OF 2







Attachment R

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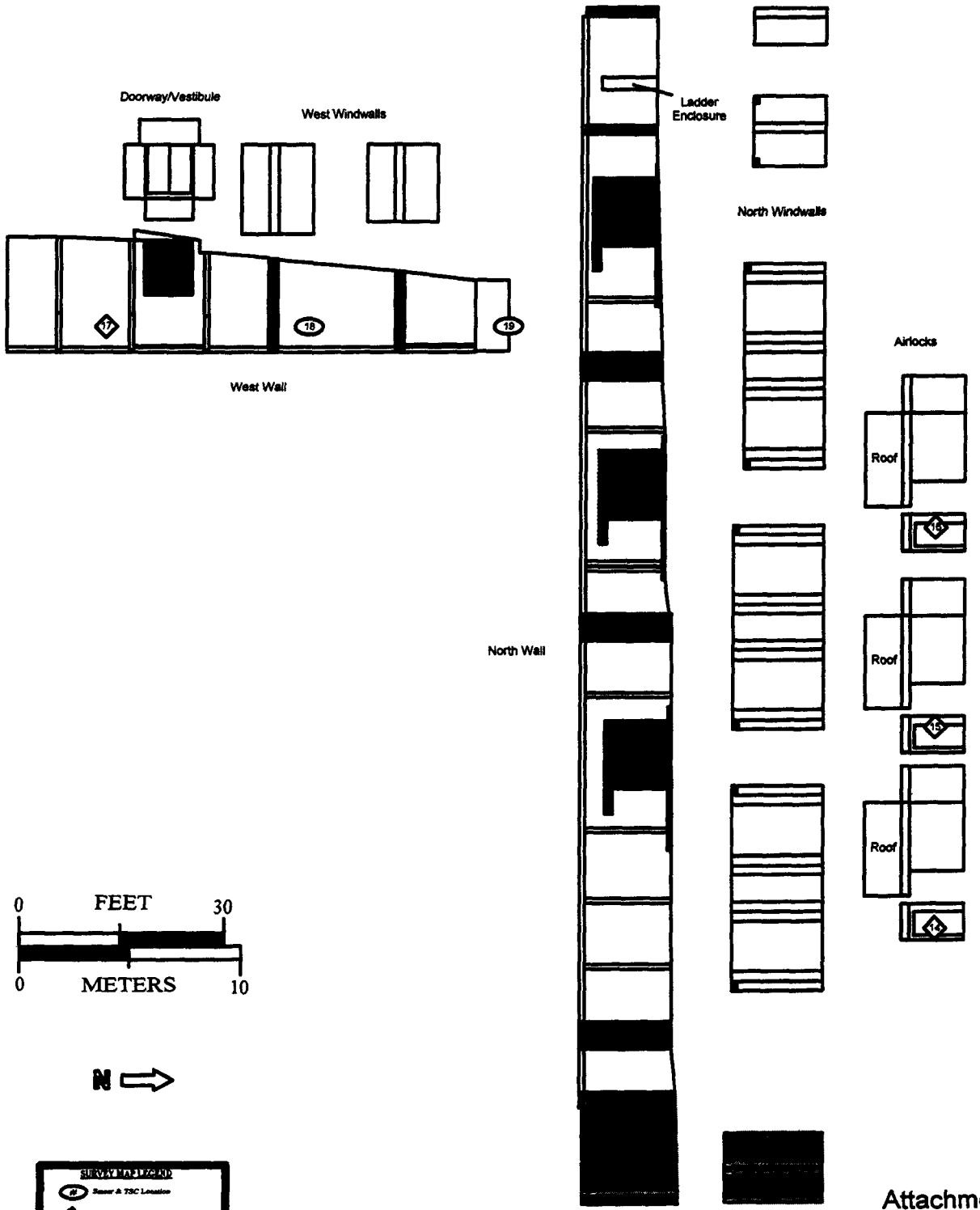
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

Survey Area H **Survey Unit.** 77907 **Classification** 2
Building 779
Survey Unit Description B779 Exterior Walls & Roof (Annex A West/North Walls & Roof)

Total Floor Area 1086 sq m **Total Area** 1544 sq m **Grid Size** 9m x 9m

SURVEY UNIT 77907-MAP 2 OF 2

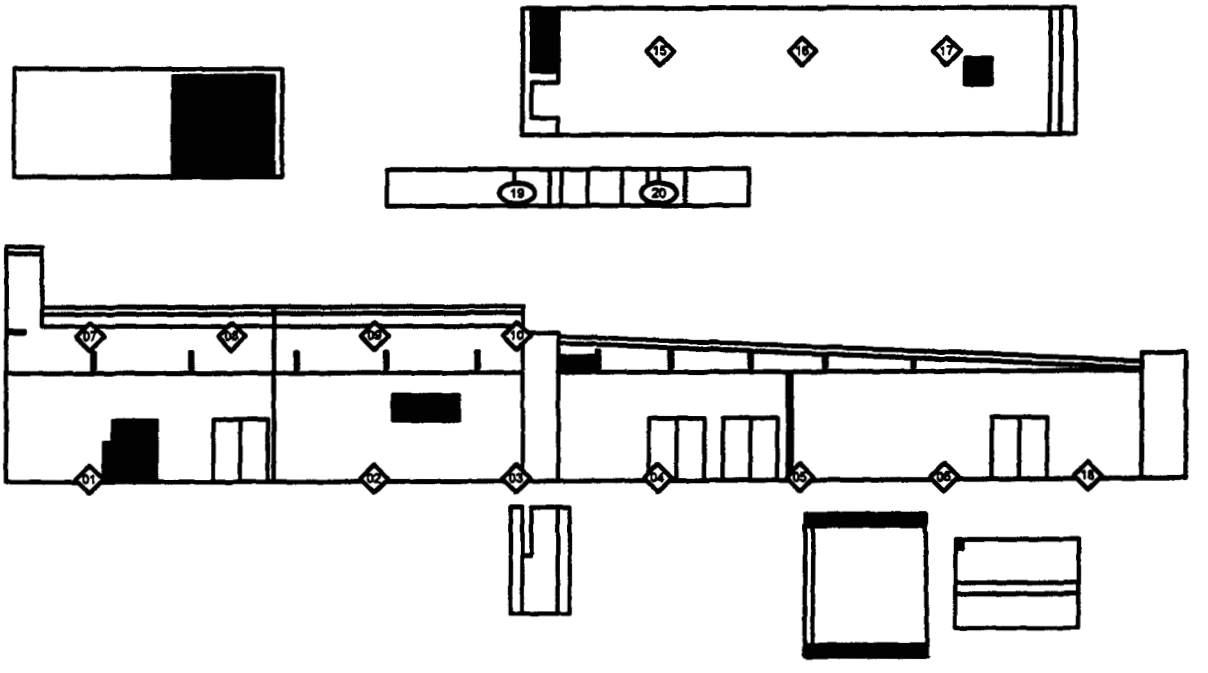


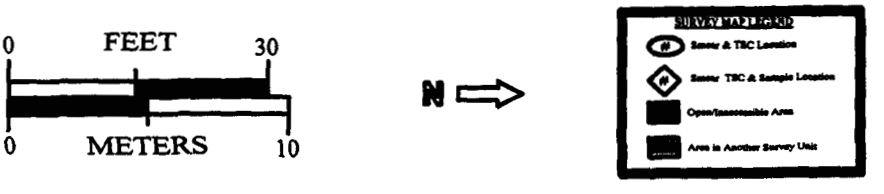
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

Survey Area H **Survey Unit.** 77908 **Classification** 2
Building 779
Survey Unit Description B779 Exterior Walls & Roof (Dock Walls & Roof)

Total Floor Area 180 sq m **Total Area** 439 sq m **Grid Size** 5m x 5m

SURVEY UNIT 77908-MAP 1 OF 1





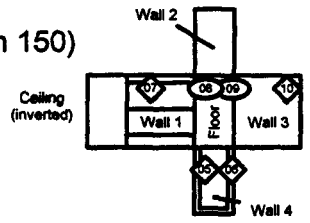
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

Survey Area H **Survey Unit** 77910 **Classification** 2

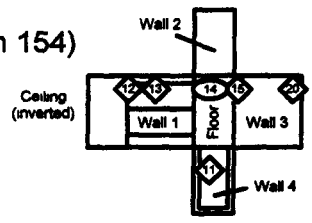
Building 779
Survey Unit Description B779 North Wall Airlocks (Doors 6, 7 & 8)
Total Floor Area 12 sq m **Total Area** 83 5 sq m **Grid Size** 3 0 m x 3 0 m

SURVEY UNIT 77910 - MAP 1 OF 1

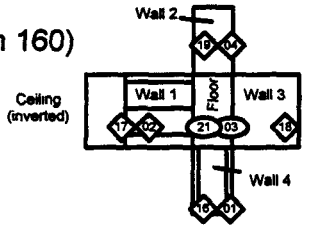
Door #6
(Outside Room 150)

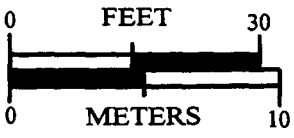


Door #7
(Outside Room 154)

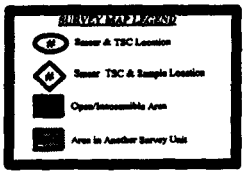


Door #8
(Outside Room 160)





N ⇨



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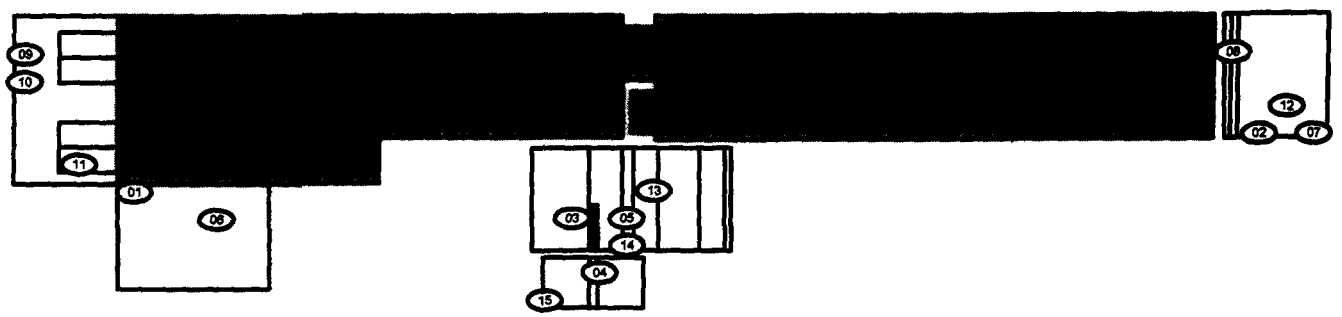
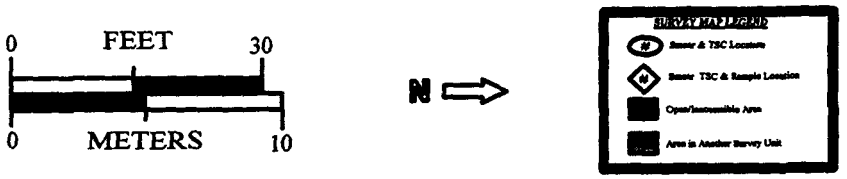
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

Survey Area I **Survey Unit: 77919** **Classification** 3
Building 779
Survey Unit Description B779 Dock & Ramp (Walls Only)
Total Area 94 5 sq m

SURVEY UNIT 77919 - MAP 1 OF 1





Attachment R

Page 5 of 15

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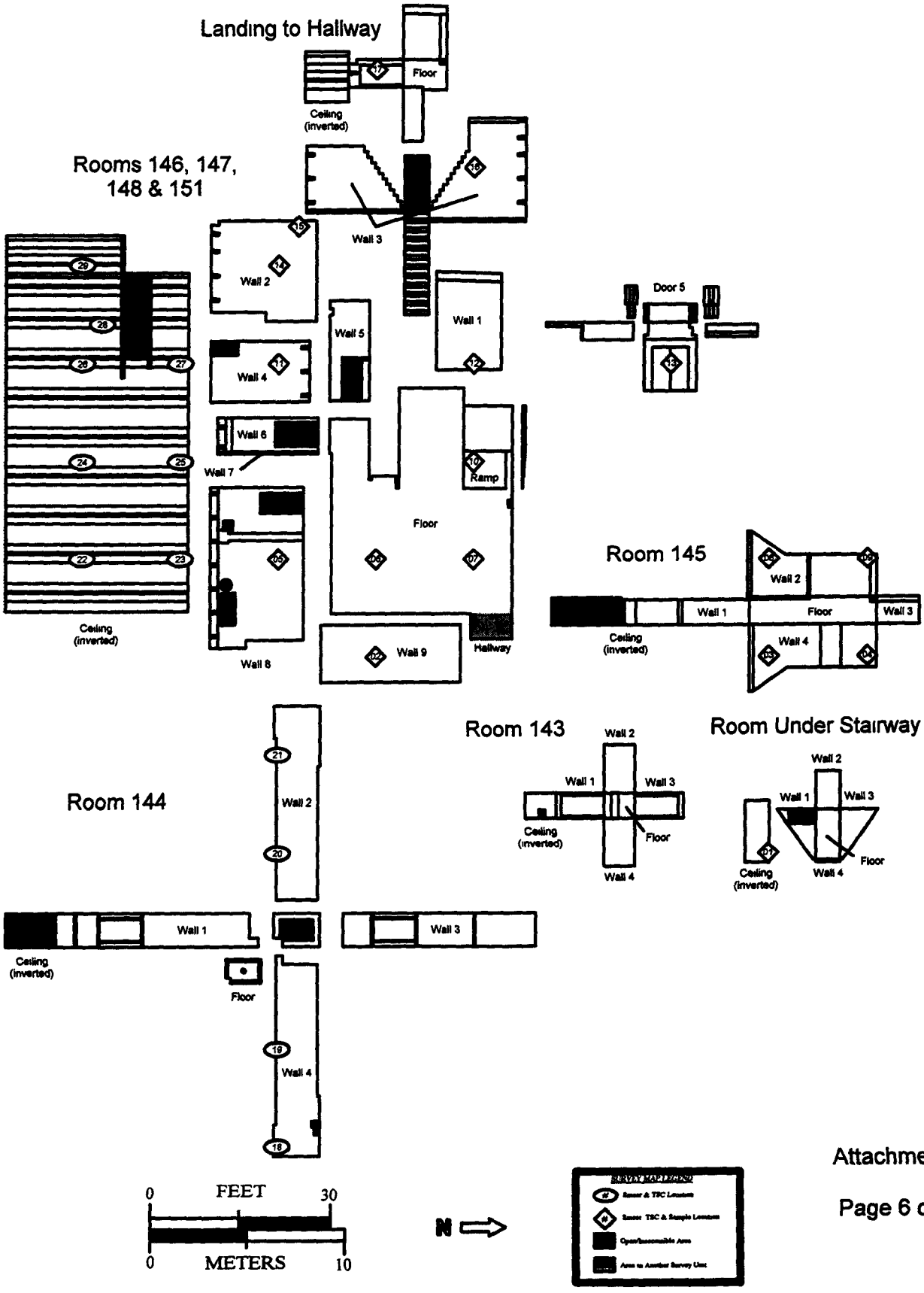
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

Survey Area E **Survey Unit.** 77921 **Classification** 1

Building 779
Survey Unit Description B779 First Floor "A" Annex (Rooms 143, 144, 145, 146, 147, 148 & 151)
Total Floor Area 113 sq m **Total Area** 634 sq m **Grid Size** 5.0 m x 5.0 m

SURVEY UNIT 77921 - MAP 1 OF 1



Attachment R

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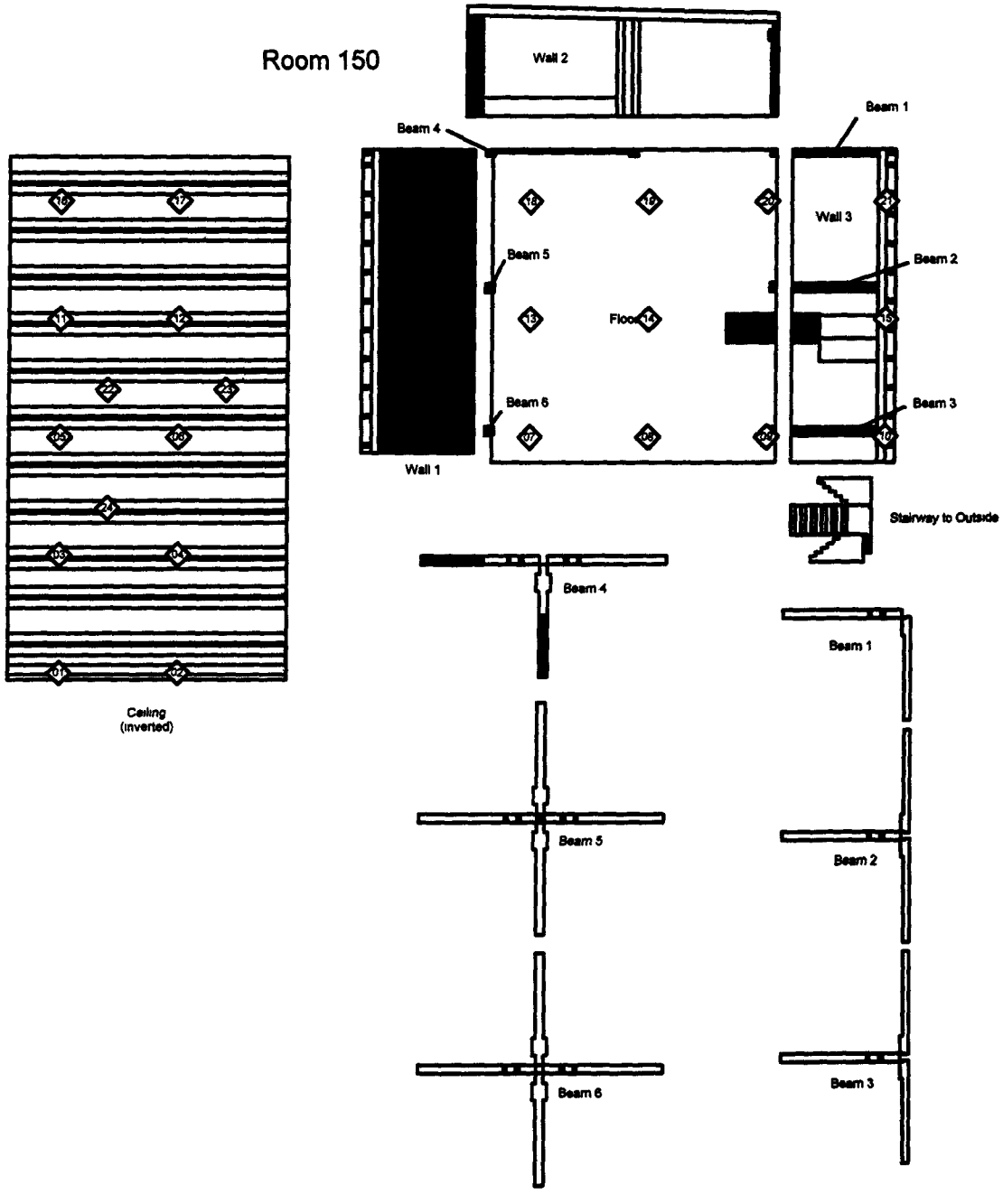
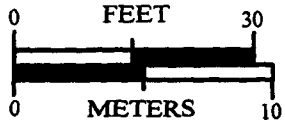
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

Survey Area E **Survey Unit** 77922 **Classification** 1

Building 779
Survey Unit Description B779 First Floor "A" Annex Room 150
Total Floor Area 160 sq m **Total Area** 413 sq m **Grid Size** 5 0 m x 5 0 m

SURVEY UNIT 77922 - MAP 1 OF 1





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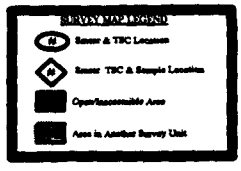

Attachment R

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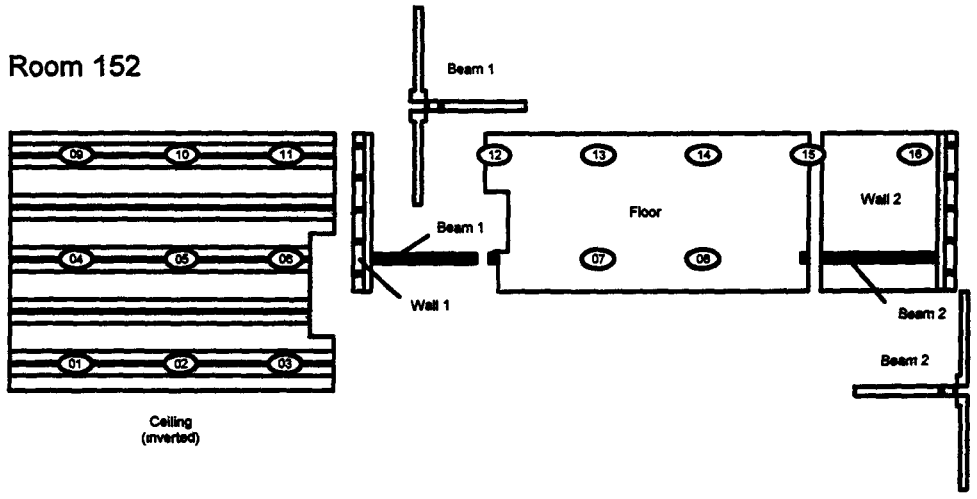
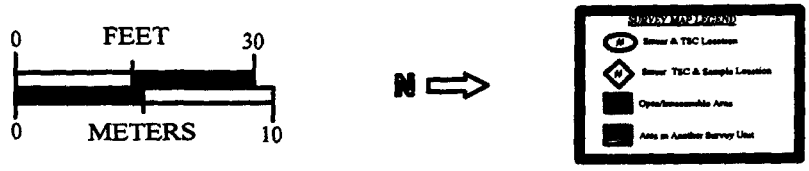
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

Survey Area E **Survey Unit** 77923 **Classification** 1

Building 779
Survey Unit Description B779 First Floor "A" Annex Room 152
Total Floor Area 72 sq m **Total Area** 229 sq m **Grid Size** 4 0 m x 4 0 m

SURVEY UNIT 77923 - MAP 1 OF 1





Attachment R

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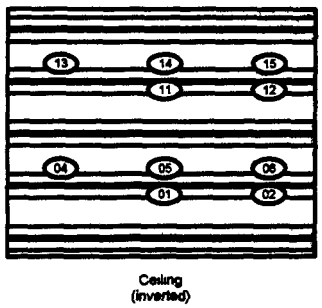
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

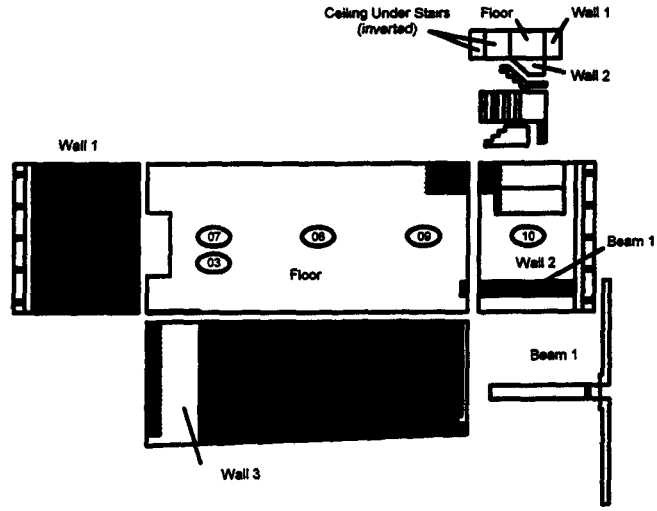
Survey Area E **Survey Unit 77924** **Classification 1**

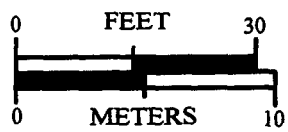
Building 779
Survey Unit Description B779 First Floor "A" Annex Room 154
Total Floor Area 67 sq m **Total Area 223 sq m** **Grid Size 4.0 m x 4.0 m**

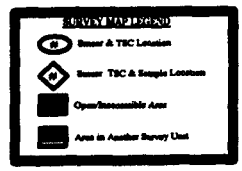
SURVEY UNIT 77924 - MAP 1 OF 1

Room 154









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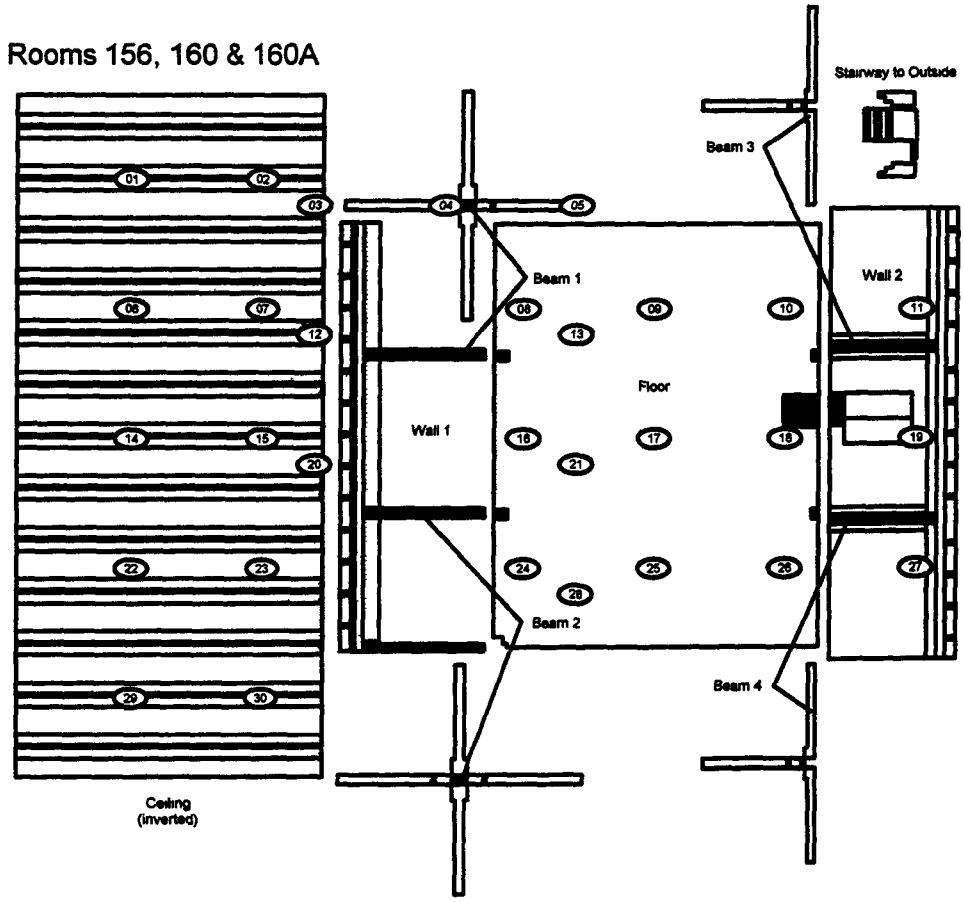
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

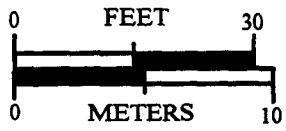
Survey Area E **Survey Unit** 77925 **Classification** 1

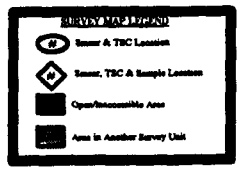
Building 779
Survey Unit Description B779 First Floor "A" Annex Rooms 156,160 & 160A
Total Floor Area 199 sq m **Total Area** 630 sq m **Grid Size** 5 0 m x 5 0 m

SURVEY UNIT 77925 - MAP 1 OF 1

Rooms 156, 160 & 160A







Attachment R

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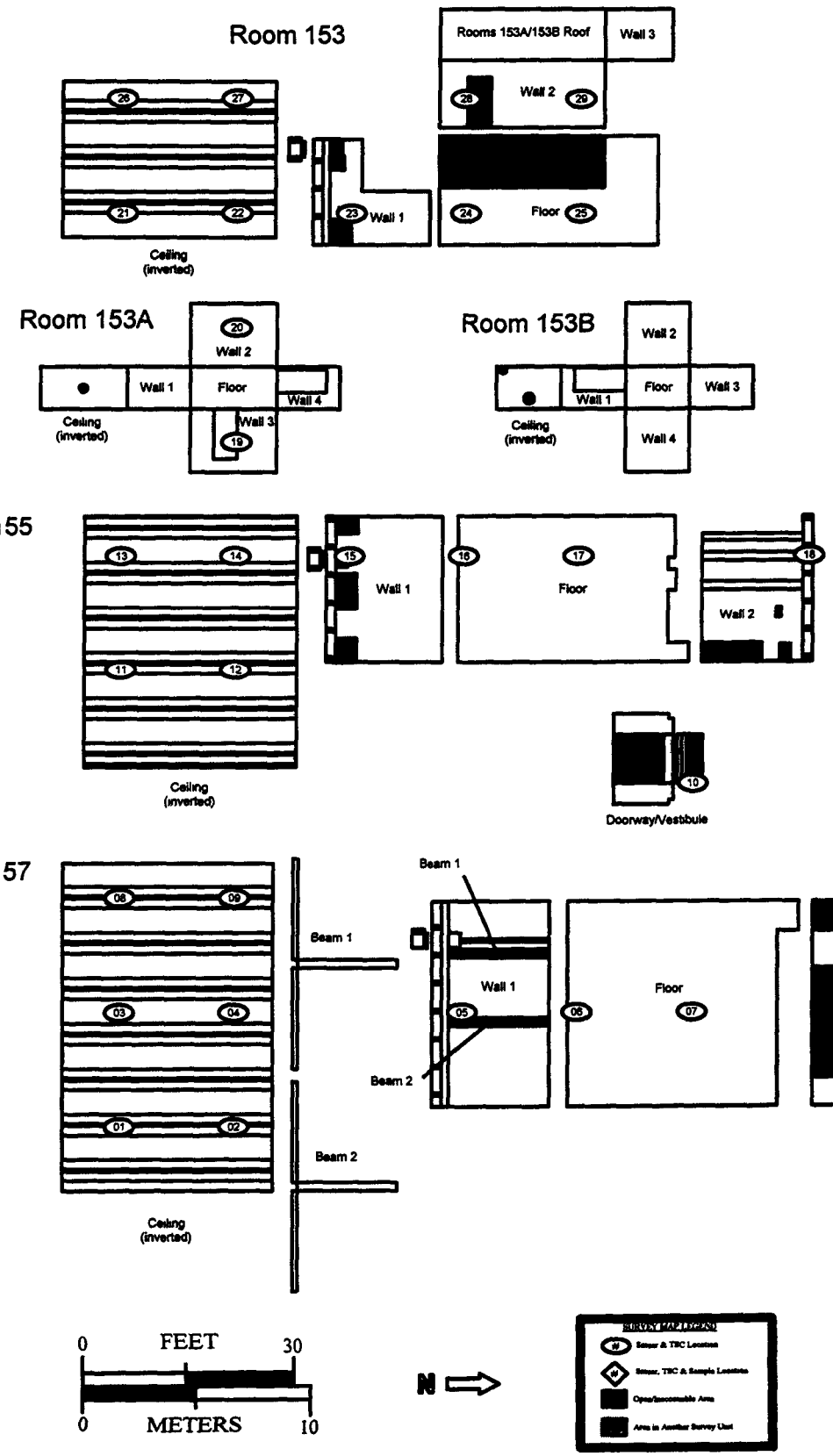
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

Survey Area E **Survey Unit 77926** **Classification 1**

Building 779
Survey Unit Description B779 First Floor "A" Annex Rooms 153, 153A, 153B, 155 & 157
Total Floor Area 183 sq m **Total Area 733 sq m** **Grid Size 5 0 m x 5 0 m**

SURVEY UNIT 77926 - MAP 1 OF 1



Attachment R

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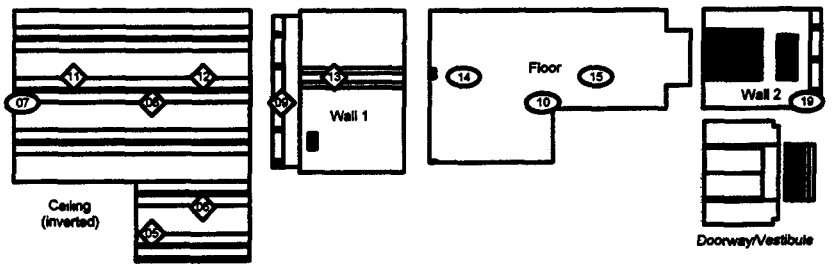
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

Survey Area E **Survey Unit** 77927 **Classification** 1

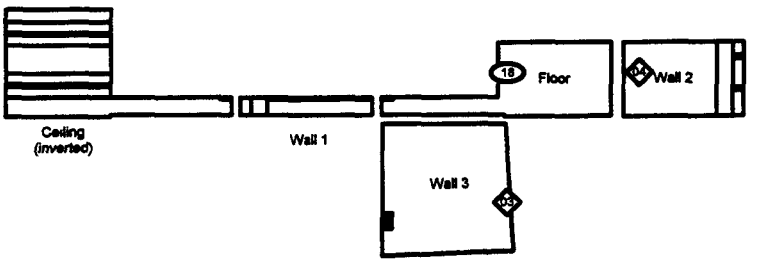
Building 779
Survey Unit Description B779 First Floor "A" Annex Rooms 159, 161 & 163
Total Floor Area 80 sq m **Total Area** 369 sq m **Grid Size** 5 0 m x 5 0 m

SURVEY UNIT 77927 - MAP 1 OF 1

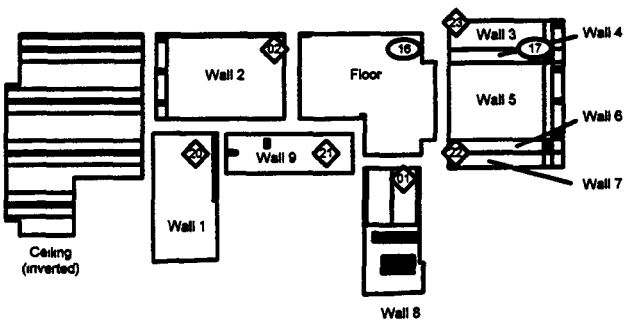
Room 159

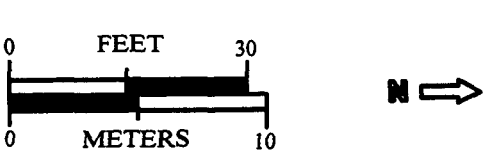


Room 161



Room 163





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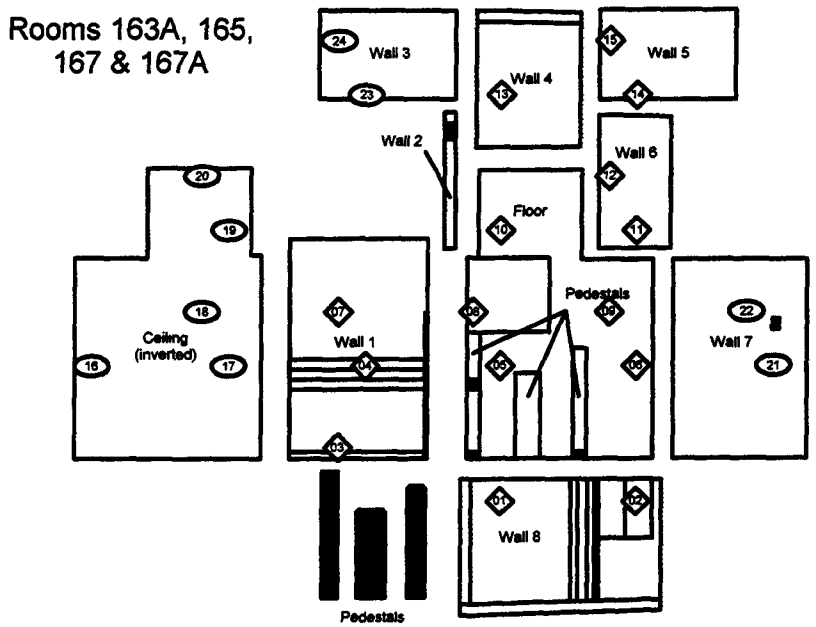
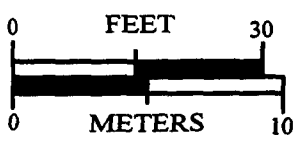
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

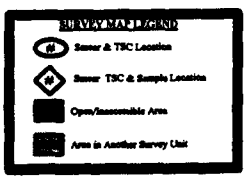
Survey Area E **Survey Unit. 77928** **Classification 2**

***Building* 779**
Survey Unit Description B779 First Floor "A" Annex (Rooms 163A, 165, 167 & 167A)
Total Floor Area 64 sq m **Total Area 305 sq m** **Grid Size 5 0 m x 5 0 m**

SURVEY UNIT 77928 - MAP 1 OF 1







Attachment R

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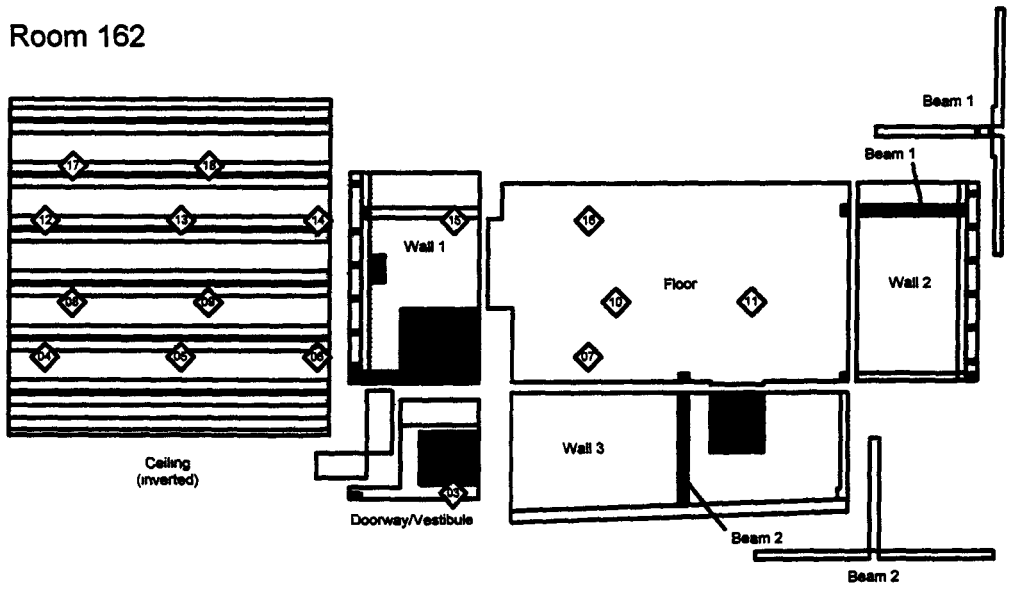
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

Survey Area E **Survey Unit:** 77929 **Classification** 2

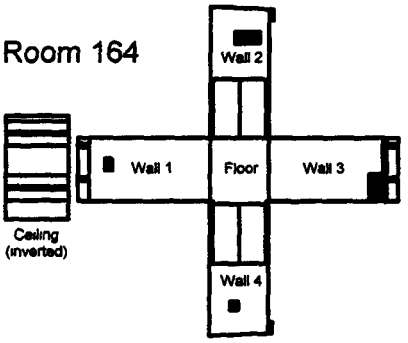
Building 779
Survey Unit Description B779 First Floor "A" Annex (Rooms 162, 164 & 166)
Total Floor Area 107 sq m **Total Area** 498 sq m **Grid Size** 5 0 m x 5 0 m

SURVEY UNIT 77929 - MAP 1 OF 1

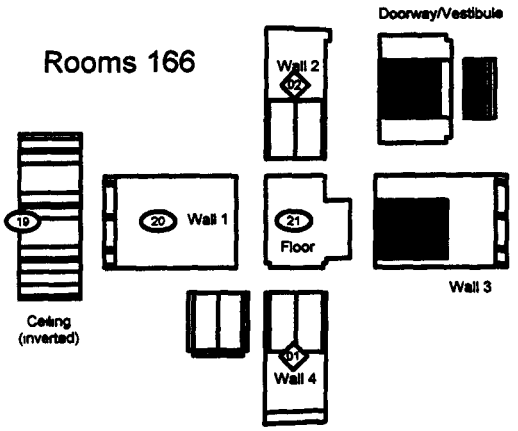
Room 162

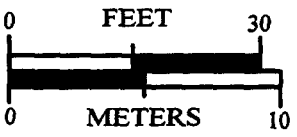


Room 164



Rooms 166





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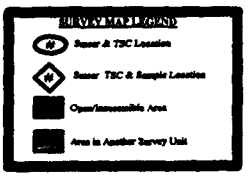

Attachment R

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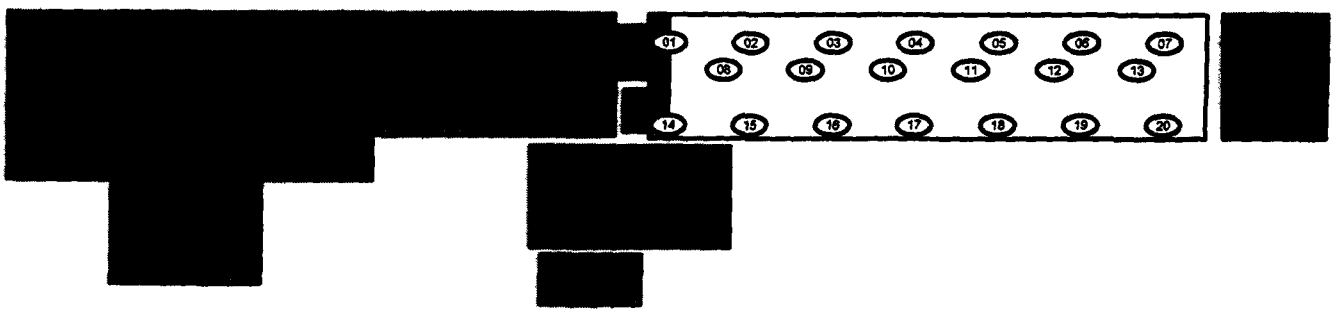
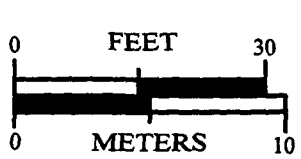
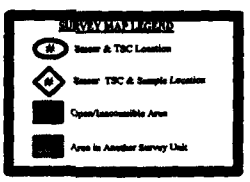
RADIOLOGICAL CLOSEOUT SURVEY FOR THE 779 CLUSTER

Survey Area I **Survey Unit.** 77949 **Classification** 1
Building 779
Survey Unit Description B779 Dock & Ramp (North Floor Only)
Floor Area 88 sq m **Total Area** 88 sq m **Grid Size** 3 0 m x 3 0 m

SURVEY UNIT 77949 - MAP 1 OF 1







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